# STR-343L

*AEP Model*
*UK Model*

# FM-AM PROGRAM RECEIVER

## SPECIFICATIONS

**FM tuner section**

| | |
|---|---|
| Tuning range | 87.5–108 MHz |
| Antenna terminals | 300 ohm balanced<br>75 ohm unbalanced |
| Intermediate frequency | 10.7 MHz |
| Sensitivity at 46 dB quieting (at 40 kHz deviation) | 4.0 $\mu$V (mono), 45 $\mu$V (stereo) |
| Usable sensitivity | IHF 1.8 $\mu$V, 10.3 dBf<br>1.6 $\mu$V (S/N = 26 dB, 40 kHz deviation) |
| Signal-to-noise ratio | 69 dB (mono), 64 dB (stereo) |
| Harmonic distortion | 0.2% (mono), 0.3% (stereo), at 1 kHz |
| IM distortion | 0.2% (mono), 0.3% (stereo) |
| Separation | 45 dB at 1 kHz |
| Frequency response | 40 Hz – 12.5 kHz $^{+0.5}_{1}$dB |
| Selectivity at 300 kHz (at 40 kHz deviation, S/N = 26 dB) | 40 dB |
| Capture ratio | 1.5 dB |
| AM suppression ratio | 48 dB |
| Image response ratio | 45 dB |
| Spurious response ratio | 70 dB |
| Muting threshold | Approx. 5 $\mu$V |

**MW/LW tuner section**

| | MW | LW |
|---|---|---|
| Tuning range | 522 kHz – 1,602 kHz | 150 kHz – 350 kHz |
| Antenna | Built-in ferrite rod antenna,<br>External antenna terminal | |
| Intermediate frequency | 450 kHz | |
| Usable sensitivity | 250 $\mu$V/m, built-in antenna (1,000 kHz)<br>100 $\mu$V, external antenna (1,000 kHz) | 500 $\mu$V/m, built-in antenna (230 kHz)<br>100 $\mu$V, external antenna (230 kHz) |
| Signal-to-noise ratio | 52 dB (50 mV/m) | 52 dB (50 mV/m) |
| Harmonic distortion | 0.3% (50 mV/m, 400 Hz) | 0.3% (50 mV/m, 400 Hz) |
| Selectivity | 35 dB (9 kHz) | 35 dB (9 kHz) |

– Continued on page 2 –

### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SONY®

## SERVICE MANUAL

**Amplifier section**

Continuous RMS power output (less than 0.08% THD, both channels driven simultaneously)
at 20 Hz–20 kHz
30 + 30 watts (8 ohms)
at 1 kHz
33 + 33 watts (8 ohms)
according to DIN 45500
30 + 30 watts (8 ohms)

Dynamic power output (IHF constant power supply method)
95 watts (8 ohms)

Power bandwidth (IHF)
15 Hz–35 kHz

Damping factor 30 at 1kHz, 8 ohms

Harmonic distortion Less than 0.08% at rated output
Less than 0.05% at 1 W output

Intermodulation (IM) distortion (60 Hz : 7 kHz = 4:1)
Less than 0.08% at rated output
Less than 0.05% at 1 W output

Residual noise Less than 0.05 μW at 8 ohms

Inputs

| | Sensitivity | Impedance | S/N | Weighting network |
|---|---|---|---|---|
| PHONO | 2.5 mV | 50 K ohms | 75 dB | A |
| TAPE | 150 mV | 50 K ohms | 95 dB | A |

Measured with rated output power into 8 ohm loads (both channels driven simultaneously) at 1kHz.

Outputs (with rated input)

| | | |
|---|---|---|
| REC OUT | Voltage 150 mV | Impedance 10 k ohms |
| HEADPHONES | Accepts all low or high impedance headphones. | |
| SPEAKER | 8–16 ohm speakers are suitable. | |

Frequency response PHONO
RIAA equalization curve ±0.5 dB
TAPE
10 Hz–50 kHz $^{+0}_{-3}$ dB

Tone controls BASS ±8 dB at 100 Hz
TREBLE ±8 dB at 10 kHz

Loudness control (att. 30 dB)
+8 dB at 100 Hz

**General**

System Superheterodyne FM/AM tuner, Direct coupled quasi-complementary symmetry power amplifier circuit (SEPP OTL)

Power requirements UK model: 240 V ac (or 220 V ac adjustable by authorized Sony personnel), 50 Hz
AEP model: 220 V ac (or 240 V ac adjustable by authorized Sony personnel), 50 Hz

Power consumption UK model: 190 W
AEP model: 160 W

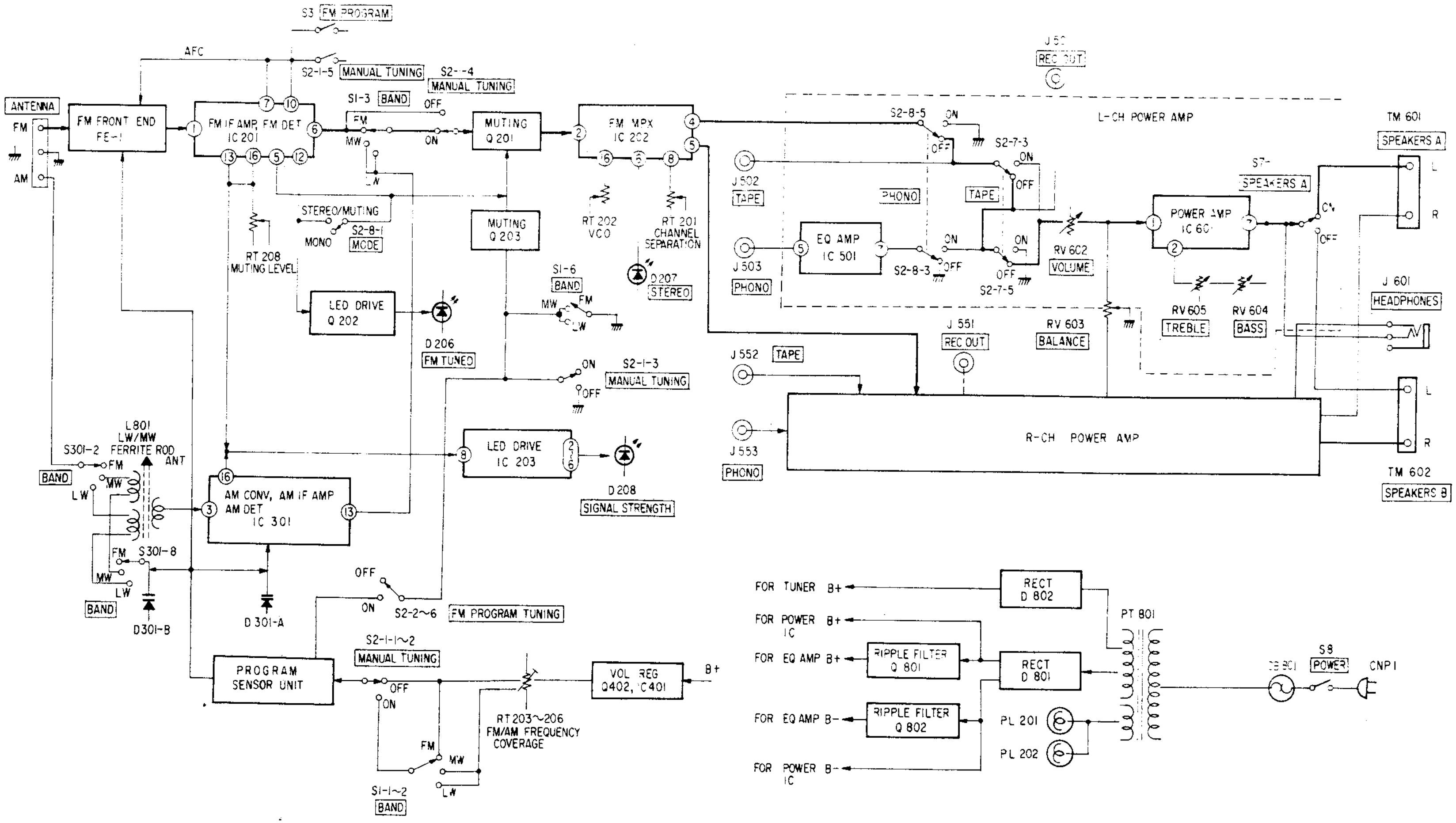
AC outlets Two unswitched, total 200 W
(provided only for the UK model)

Dimensions Approx. 430 × 110 × 315 mm (w/h/d)
(17 × 4 1/4 × 12 3/8 inches)
incl. projecting parts and controls

Weight Approx. 7.2 kg (15 lb 15 oz) net
Approx. 8.7 kg (19 lb 3 oz) in shipping carton

# SECTION 1
# OUTLINE

## 1-1. BLOCK DIAGRAM


S3 FM PROGRAM
AFC
S2-1-5 MANUAL TUNING
S2-1-4 MANUAL TUNING
ANTENNA
FM
AM
FM FRONT END
FE-1
FM IF AMP, FM DET
IC 201
S1-3 BAND
OFF
FM
MW
LW
ON
MUTING
Q 201
FM MPX
IC 202
STEREO/MUTING
MONO
S2-8-1
MODE
RT 208
MUTING LEVEL
MUTING
Q 203
RT 202
VCO
RT 201
CHANNEL SEPARATION
D 207
STEREO
S1-6
BAND
LED DRIVE
Q 202
D 206
FM TUNED
S2-1-3
MANUAL TUNING
L801
LW/MW
FERRITE ROD
ANT
S301-2
BAND
AM CONV, AM IF AMP
AM DET
IC 301
LED DRIVE
IC 203
D 208
SIGNAL STRENGTH
S301-8
BAND
D301-B
D 301-A
S2-2~6
FM PROGRAM TUNING
PROGRAM
SENSOR UNIT
S2-1-1~2
MANUAL TUNING
RT 203~206
FM/AM FREQUENCY
COVERAGE
VOL REG
Q402, IC401
B+
S1-1~2
BAND
J 501
REC OUT
S2-8-5
S2-7-3
L-CH POWER AMP
TM 601
SPEAKERS A
J 502
TAPE
PHONO
TAPE
S7-
SPEAKERS A
EQ AMP
IC 501
J 503
PHONO
S2-8-3
S2-7-5
RV 602
VOLUME
POWER AMP
IC 601
RV605
TREBLE
RV 604
BASS
J 601
HEADPHONES
J 551
REC OUT
RV 603
BALANCE
J 552
TAPE
J 553
PHONO
R-CH POWER AMP
TM 602
SPEAKERS B
FOR TUNER B+
FOR POWER IC B+
FOR EQ AMP B+
FOR EQ AMP B-
FOR POWER IC B-
RECT
D 802
RIPPLE FILTER
Q 801
RECT
D 801
RIPPLE FILTER
Q 802
PL 201
PL 202
PT 801
CB 801
S8
POWER
CNP1

## 1-2. SERVICING NOTE

## MELF (Metal Electrodes Face-Bonding) Components

**Warning**

If MELF components are forcibly removed from the printed circuit board with pincers or pliers, the circuit board pattern is likely to peel away. Always remove MELF components according to the procedure described on the next page. Replace MELF components with the lead type components.

MELF components are soldered directly to the surface of the printed circuit board.

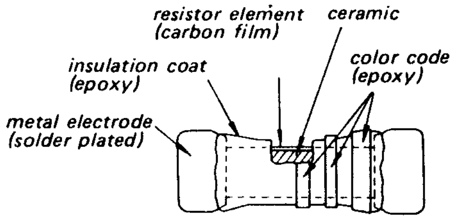
MELF resistors and capacitors have the same dimensions and are distinguished by their background colors: light brown for resistors, and pink or light green for capacitors.

The MELF resistor color coding is the same as for conventional resistors, and MELF capacitor color coding is the same as for tube-type ceramic capacitors. Note, however, that all MELF resistors are rated at ¼W and ±5%.

Components larger than resistors and without a color code are cross conductors, which are used instead of jumper wires.

### 1. Structure

**(Resistors)**


resistor element
(carbon film)
ceramic
insulation coat
(epoxy)
color code
(epoxy)
metal electrode
(solder plated)

**(Capacitors)**

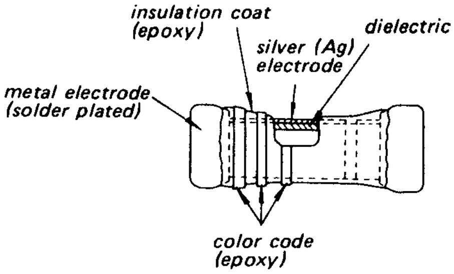
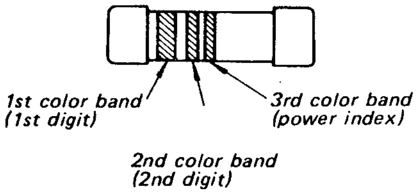
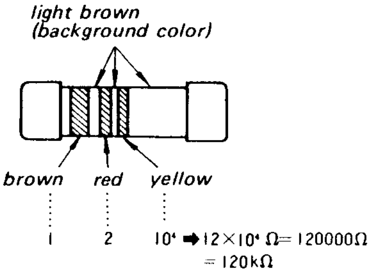

insulation coat
(epoxy)
dielectric
silver (Ag)
electrode
metal electrode
(solder plated)
color code
(epoxy)

*Fig. 1*

### 2. Color Code Reading


1st color band
(1st digit)
3rd color band
(power index)
2nd color band
(2nd digit)

**(Example of Resistor)**


light brown
(background color)
brown
red
yellow
1
2
$10^4 \Rightarrow 12\times10^4\,\Omega = 120000\,\Omega$
$= 120\,k\Omega$

**(Example of Capacitor)**

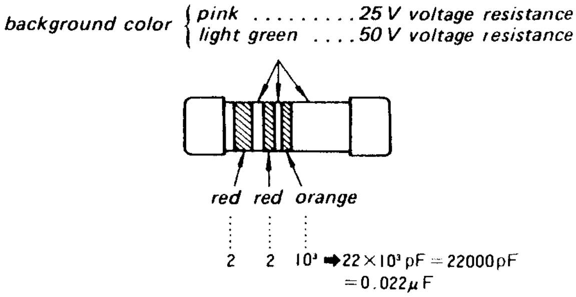

background color
pink .........25 V voltage resistance
light green ....50 V voltage resistance
red
red
orange
2
2
$10^3 \Rightarrow 22\times10^3\,pF = 22000\,pF$
$= 0.022\,\mu F$

*Fig. 2*

### 3. How to Remove MELF Components and Mount Replacements

Use a soldering iron of at least 40W with an iron tip 4 mm in diameter and file the tip down to the angle shown in the diagram.

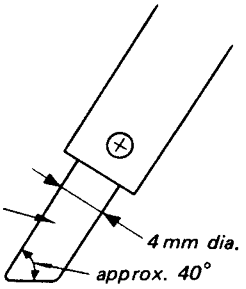

iron tip
4 mm dia.
approx. 40°

Fig. 3

1. Bring the flat surface of the soldering iron in equal contact with both soldered ends of the component.
2. The solder should melt in about 4 seconds. (The solder will melt more readily if a small amount of solder is attached to the iron tip and the iron tip is placed against the component.)
3. Once the solder has melted, tap the component aside with the tip of the soldering iron, and remove it from the board.

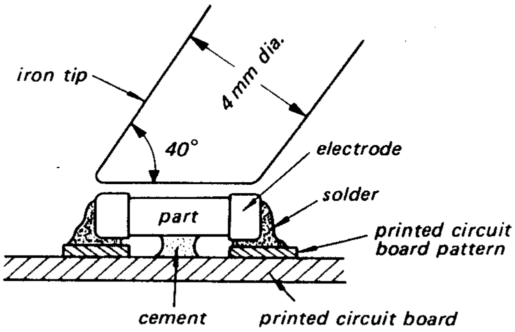

iron tip
4 mm dia.
40°
electrode
solder
part
printed circuit board pattern
cement
printed circuit board

Fig. 4

4. Use lead type resistors or capacitors to replace the MELF components. These replacements may be mounted either with short leads (see Fig. 5), or by covering a lead with tubing (see Fig. 6).

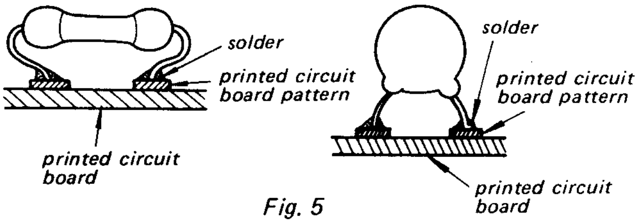

solder
printed circuit board pattern
printed circuit board
solder
printed circuit board pattern
printed circuit board

Fig. 5

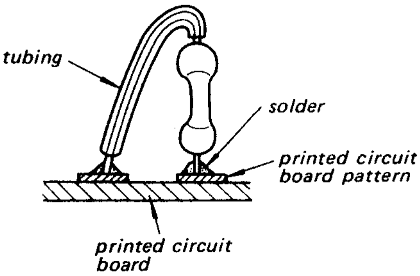

tubing
solder
printed circuit board pattern
printed circuit board

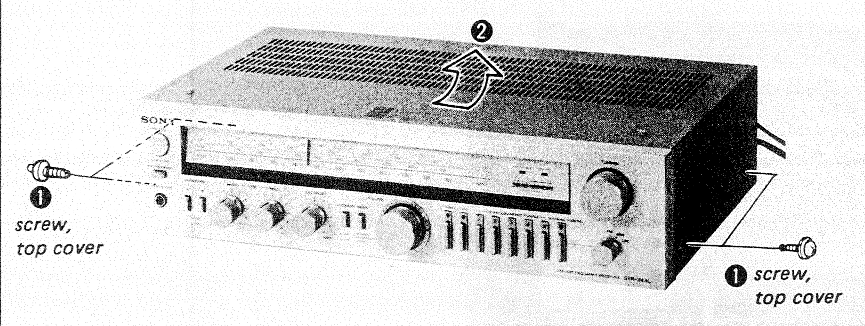
Fig. 6

# SECTION 2
# DISASSEMBLY

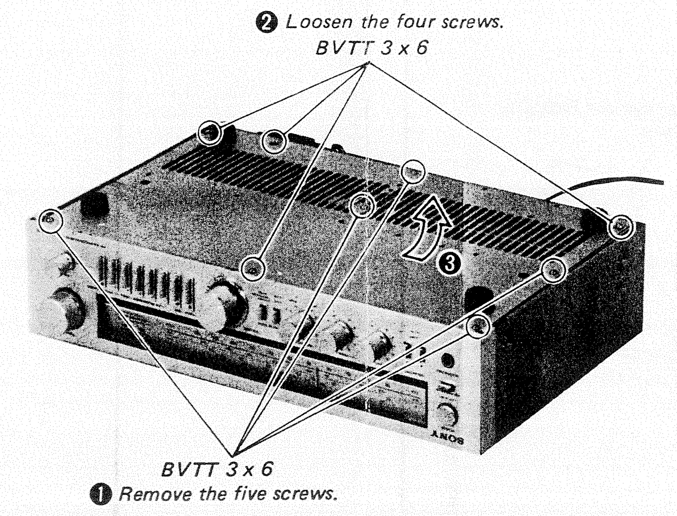
## 2-1. REMOVAL

Note: Follow the disassembly procedure in the numerical order given.

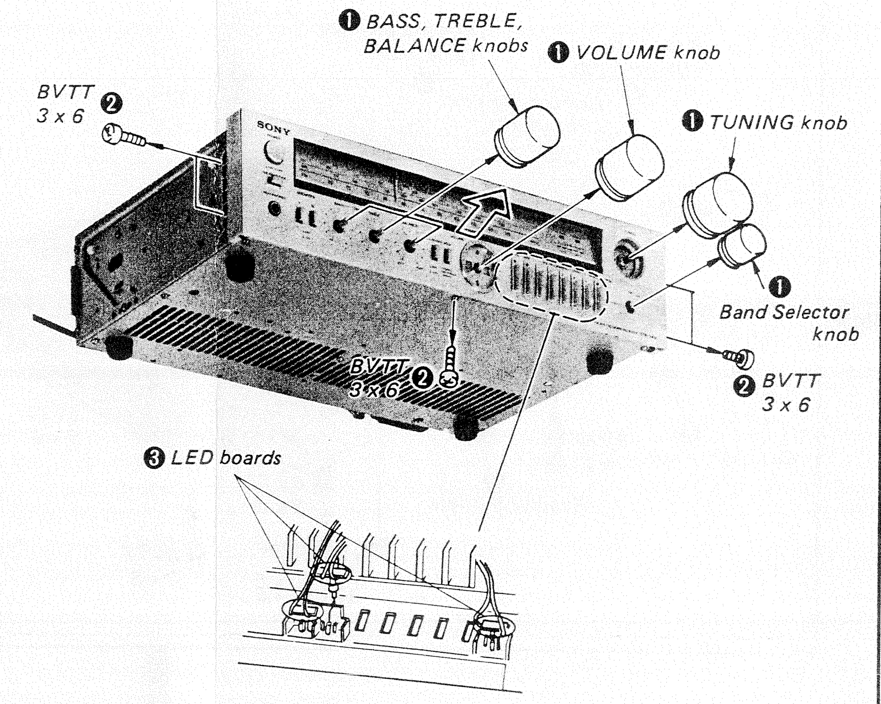
### Top Cover Removal


❷
❶ screw, top cover
❶ screw, top cover

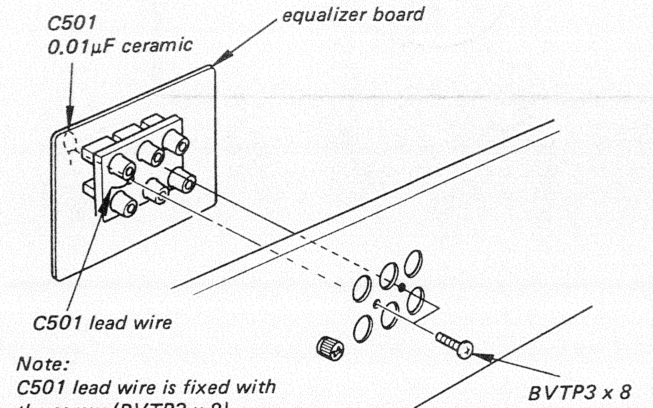
### Bottom Plate Removal


❷ Loosen the four screws. BVTT 3 x 6
❸
BVTT 3 x 6
❶ Remove the five screws.

### Front Panel Removal

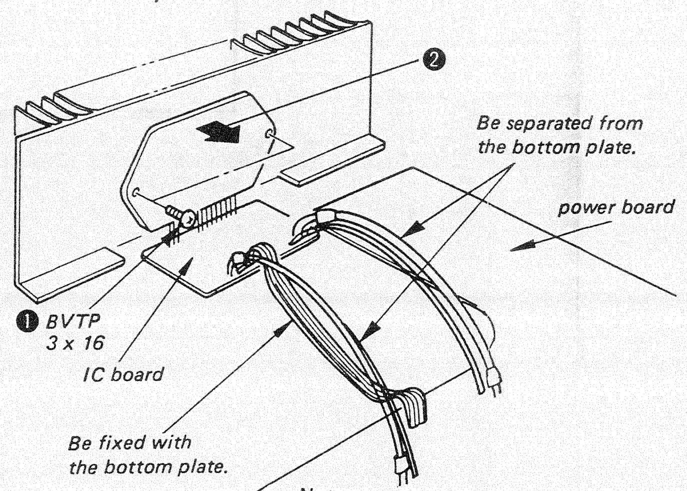

❶ BASS, TREBLE, BALANCE knobs
❶ VOLUME knob
BVTT ❷ 3 x 6
❶ TUNING knob
❶ Band Selector knob
❷ BVTT 3 x 6
BVTT ❷ 3x6
❸ LED boards

### Equalizer Board Removal


C501 0.01μF ceramic
equalizer board
C501 lead wire
BVTP3 x 8

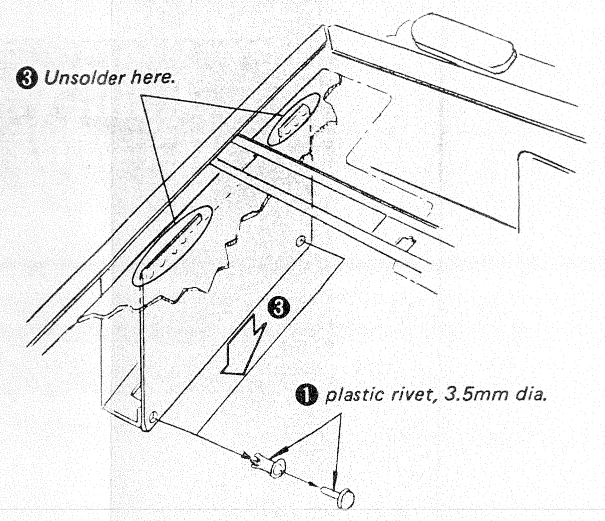
Note:
C501 lead wire is fixed with the screw (BVTP3 x 8).
This lead wire may snap off when you loosen the screw to remove the equalizer board.
So, replace C501 when removing the equalizer board.
If C501 is grounded to some other places, S/N ratio decreases.

### IC Board Removal

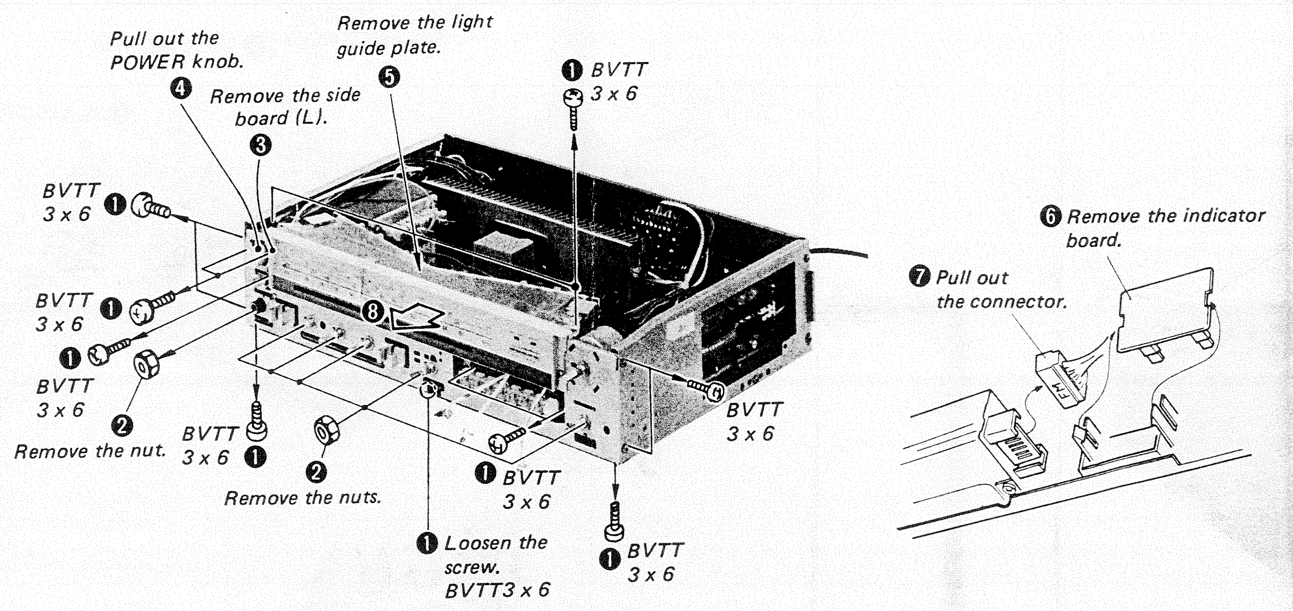

❷
Be separated from the bottom plate.
power board
❶ BVTP 3 x 16
IC board
Be fixed with the bottom plate.

Note:
Lead wires between IC board and power board should be connected as shown above. This work has influence on S/N ratio.

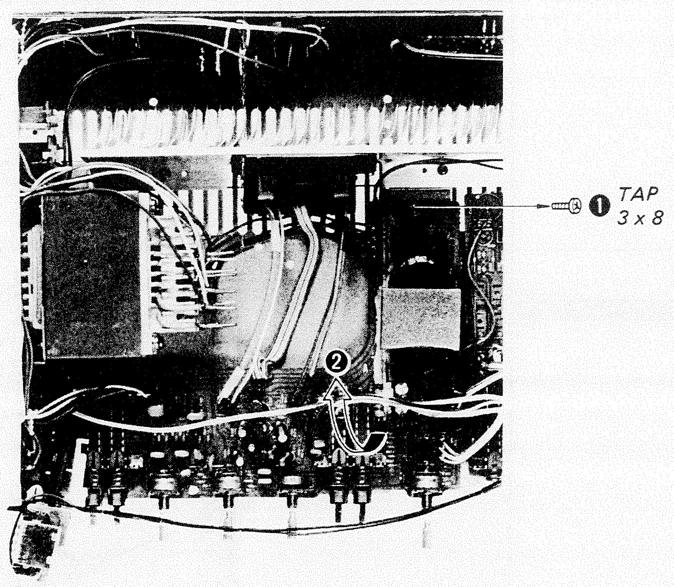
### AM Board Removal


❸ Unsolder here.
❸
❶ plastic rivet, 3.5mm dia.

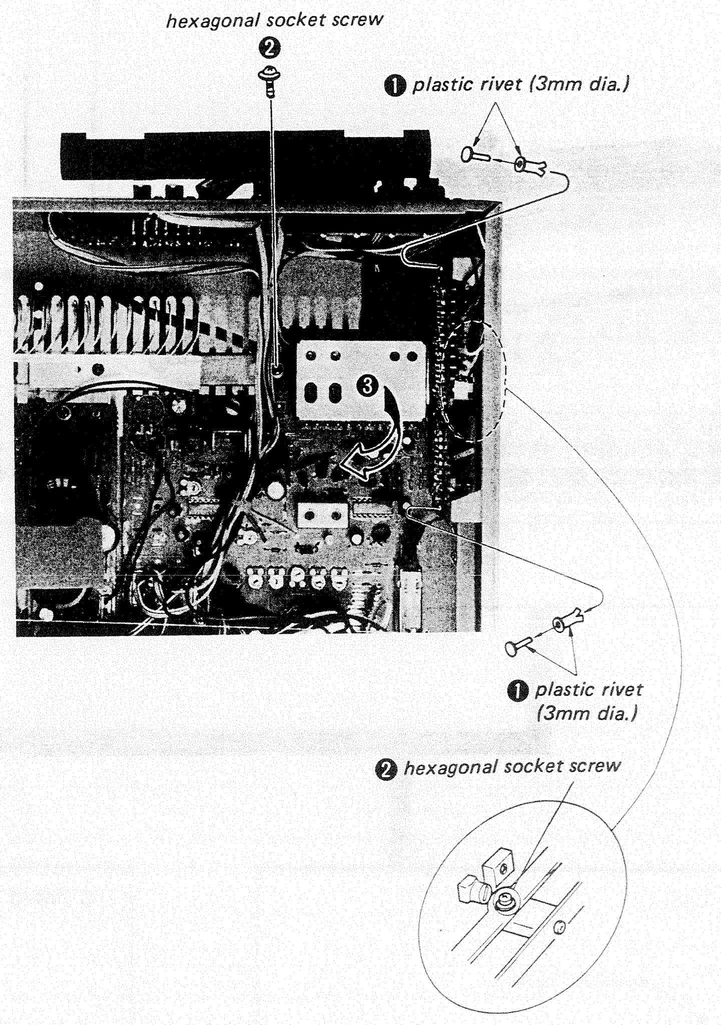
## Sub-panel Removal


Pull out the
POWER knob.
❹
Remove the light
guide plate.
❺
Remove the side
board (L).
❸
❶ BVTT
3 x 6
BVTT
3 x 6 ❶
BVTT ❶
3 x 6
❶
BVTT
3 x 6
❷
Remove the nut.
BVTT
3 x 6 ❶
❷
Remove the nuts.
❽
❶ BVTT
3 x 6
❶ Loosen the
screw.
BVTT3 x 6
❶ BVTT
3 x 6
BVTT
3 x 6
❻ Remove the indicator
board.
❼ Pull out
the connector.

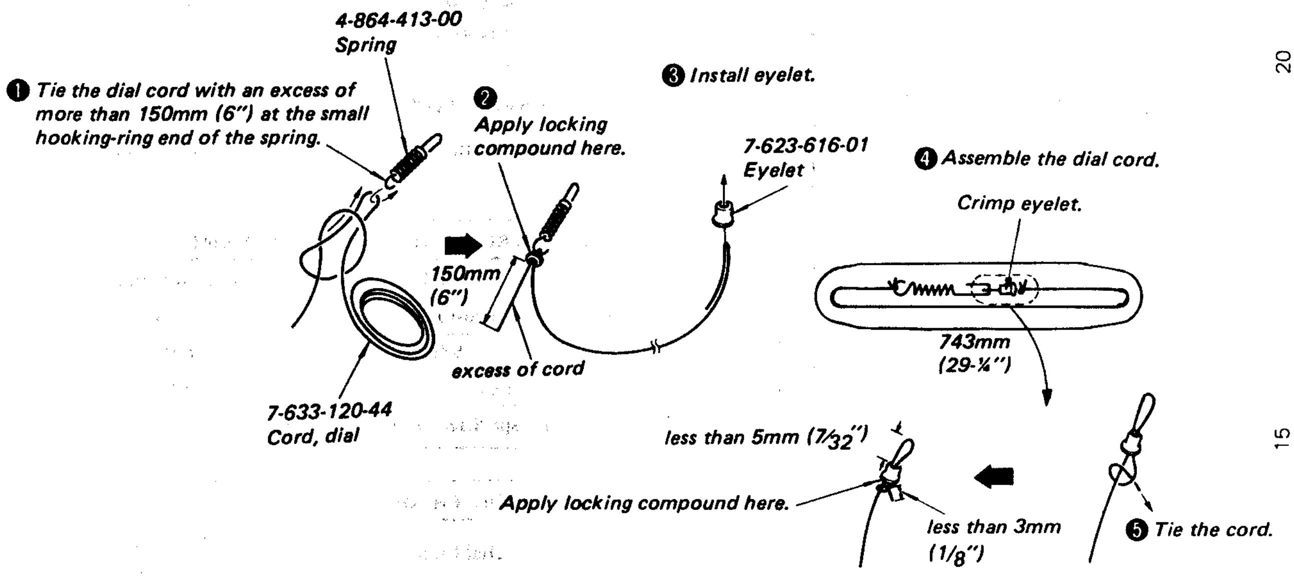
## Power Amp Board Removal



## Tuner Board Removal


hexagonal socket screw
❷
❶ plastic rivet (3mm dia.)
❸
❶ plastic rivet
(3mm dia.)
❷ hexagonal socket screw

## 2-2. DIAL CORD STRINGING



❶ *Tie the dial cord with an excess of more than 150mm (6") at the small hooking-ring end of the spring.*

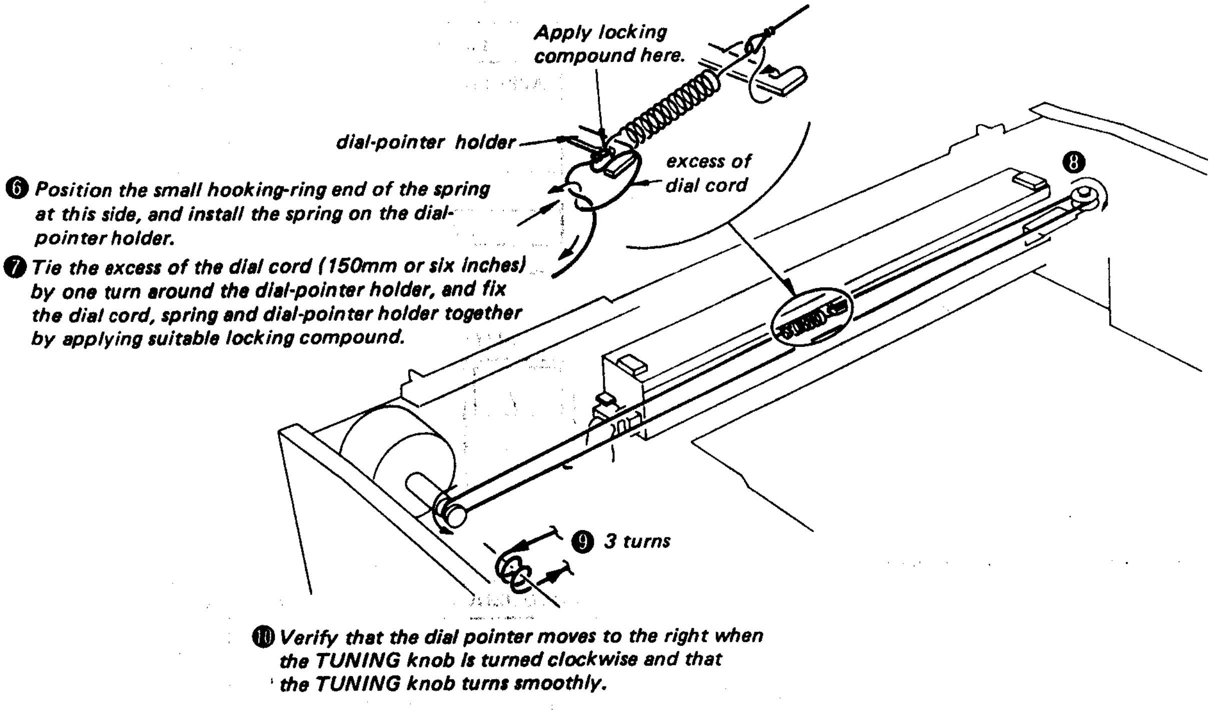
❷ *Apply locking compound here.*

❸ *Install eyelet.*

❹ *Assemble the dial cord.*

❺ *Tie the cord.*

4-864-413-00
Spring
7-633-120-44
Cord, dial
150mm
(6")
excess of cord
7-623-616-01
Eyelet
Crimp eyelet.
743mm
(29-¼")
less than 5mm (7/32")
Apply locking compound here.
less than 3mm
(1/8")



❻ *Position the small hooking-ring end of the spring at this side, and install the spring on the dial-pointer holder.*

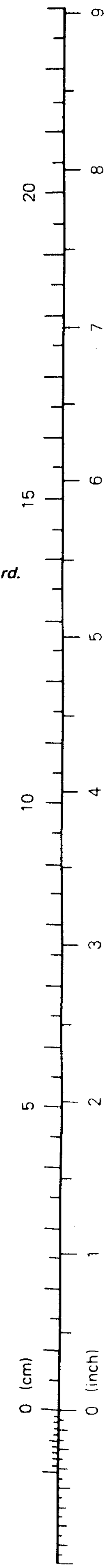
❼ *Tie the excess of the dial cord (150mm or six inches) by one turn around the dial-pointer holder, and fix the dial cord, spring and dial-pointer holder together by applying suitable locking compound.*

❽

❾ *3 turns*

❿ *Verify that the dial pointer moves to the right when the TUNING knob is turned clockwise and that the TUNING knob turns smoothly.*

Apply locking
compound here.
dial-pointer holder
excess of
dial cord



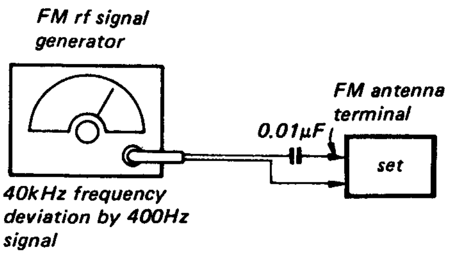
0 (cm)
5
10
15
20
0 (inch)
1
2
3
4
5
6
7
8
9

# SECTION 3
# ADJUSTMENTS

## FM SECTION

**Setting:**

| | |
|---|---|
| MANUAL TUNING switch: | ON |
| Band Selector: | FM |
| MODE switch: | MONO |


FM rf signal generator
FM antenna terminal
0.01μF
set
40kHz frequency deviation by 400Hz signal

- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

### FM FRONT-END BLOCK

Adjustment is not necessary. But if it has been meddled with in some way, and if the adjustment is necessary by all means, adjust the FM front-end block as follows.

**FM FREQUENCY COVERAGE ADJUSTMENT 1**

1) Be sure to perform this adjustment before the FM frequency coverage adjustment 2.

**TUNING CONTROL VOLTAGE ADJUSTMENT**

| Adjustment Part | Dial Indication | VOM Reading |
|---|---|---|
| RT205 | lowest frequency | 2.8V |
| RT204 | 98MHz | 8.0V |
| RT203 | highest frequency | 22.5V |
| Adjust for a specified reading on VOM. | | |

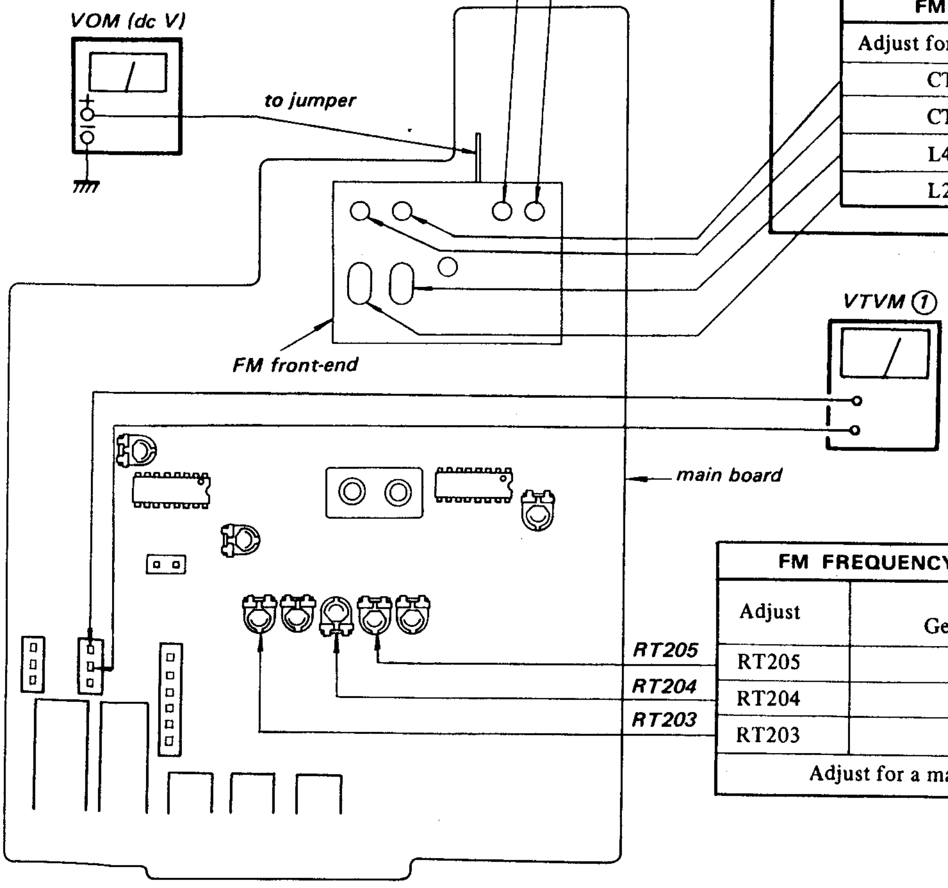
**LOCAL OSCILLATOR FREQUENCY ADJUSTMENT**

| Adjustment Part | Dial Indication | FM RF Signal Generator Frequency |
|---|---|---|
| CT3 | highest frequency | 108MHz |
| T2 | lowest frequency | 88MHz |
| Adjust for a maximum reading on VTVM ①. | | |

2) Be sure to perform this adjustment after the FM frequency coverage adjustment 2.

**FM TRACKING ADJUSTMENT**

| Adjust for a maximum reading on VTVM ①. | |
|---|---|
| CT2 | 108MHz |
| CT1 | |
| L4 | 88MHz |
| L2 | |


VOM (dc V)
to jumper
FM front-end
VTVM ①
main board
RT205
RT204
RT203

**FM FREQUENCY COVERAGE ADJUSTMENT 2**

| Adjust | FM RF Signal Generator Frequency | Dial Indication |
|---|---|---|
| RT205 | 88MHz | 88MHz |
| RT204 | 98MHz | 98MHz |
| RT203 | 108MHz | 108MHz |
| Adjust for a maximum reading on VTVM ①. | | |

## FM DISCRIMINATOR ALIGNMENT 1

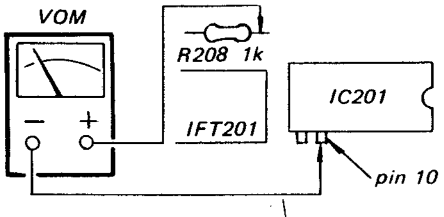
**Setting:**

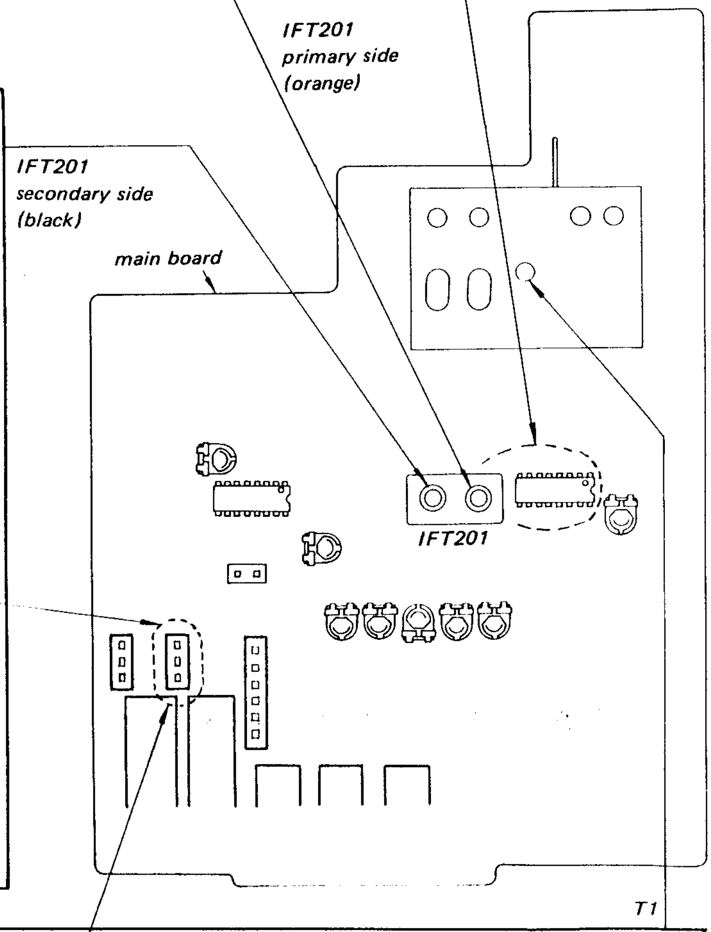
| | |
|---|---|
| MANUAL TUNING switch: | ON |
| Band Selector: | FM |
| MODE switch: | MONO |
| TUNING: | Detuned position |

**Procedure:**

Adjust the orange core (primary-side) of IFT201 for 0V dc reading on VOM.

**Note:** When replacing the ceramic filter (CF201), perform this alignment.

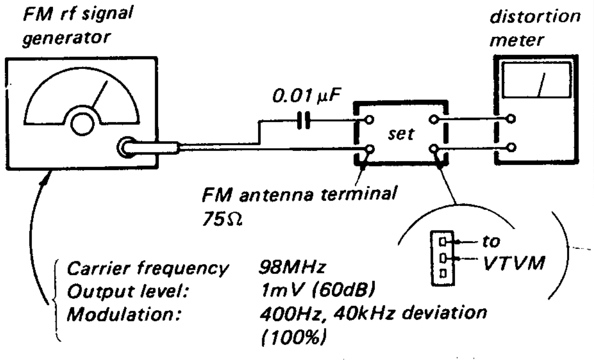

VOM
R208 1k
IFT201
IC201
pin 10


IFT201
primary side
(orange)
IFT201
secondary side
(black)
main board
IFT201
T1

## FM DISCRIMINATOR ALIGNMENT 2

**Setting:**

| | |
|---|---|
| MANUAL TUNING switch: | ON |
| Band Selector: | FM |
| MODE switch: | MONO |

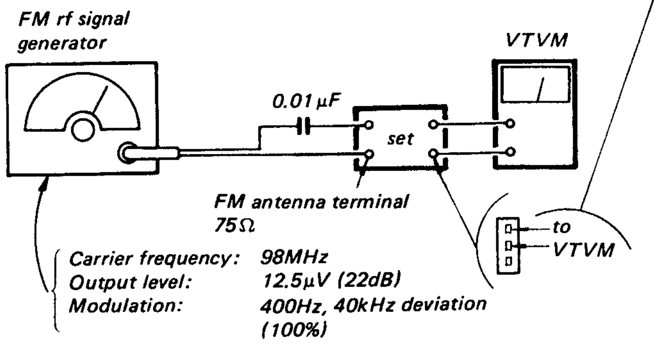

FM rf signal
generator
distortion
meter
0.01 μF
set
FM antenna terminal
75Ω
to
VTVM

Carrier frequency 98MHz
Output level: 1mV (60dB)
Modulation: 400Hz, 40kHz deviation (100%)

**Procedure:**

Adjust the black core (secondary side) of IFT201 for minimum distortion.

## FM IF ALIGNMENT


FM rf signal
generator
VTVM
0.01 μF
set
FM antenna terminal
75Ω
to
VTVM

Carrier frequency: 98MHz
Output level: 12.5μV (22dB)
Modulation: 400Hz, 40kHz deviation (100%)

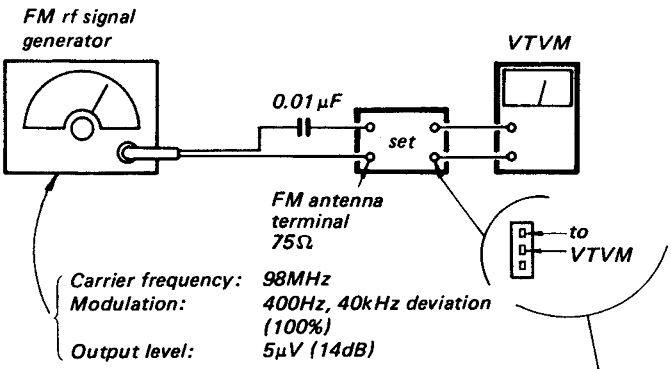
**Setting:**

| | |
|---|---|
| MANUAL TUNING switch: | ON |
| Band Selector: | FM |
| MODE switch: | MONO |

**Procedure:**

Adjust T1 for maximum reading on the VTVM.

## MUTING LEVEL ADJUSTMENT


FM rf signal generator
VTVM
0.01 µF
set
FM antenna terminal 75Ω
to VTVM

*Carrier frequency:* *98MHz*
*Modulation:* *400Hz, 40kHz deviation (100%)*
*Output level:* *5µV (14dB)*

**Setting:**

| | |
|---|---|
| MANUAL TUNING switch: | ON |
| MODE switch: | STEREO |

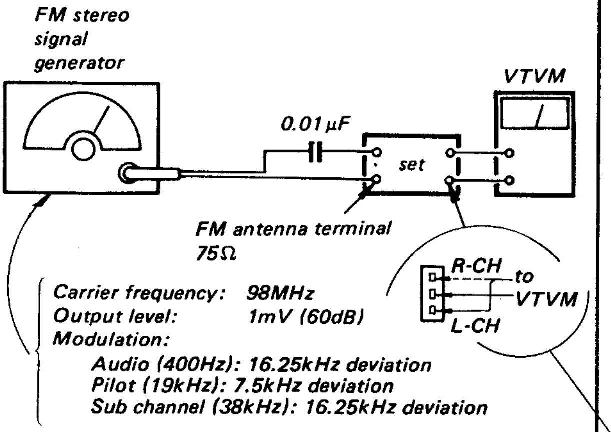
**Procedure:**

1. Turn RT208 and stop it just when the VTVM indication suddenly increases.
2. If necessary, turn RT208 fully clockwise and make sure that the VTVM indication increases when the output level of the FM rf signal generator is set to 16µV (24dB).

## FM STEREO SEPARATION ADJUSTMENT

**Setting:**

| | |
|---|---|
| MANUAL MUTING switch: | ON |
| Band Selector: | FM |
| MODE switch: | STEREO |


FM stereo signal generator
VTVM
0.01 µF
set
FM antenna terminal 75Ω
R-CH
L-CH
to VTVM

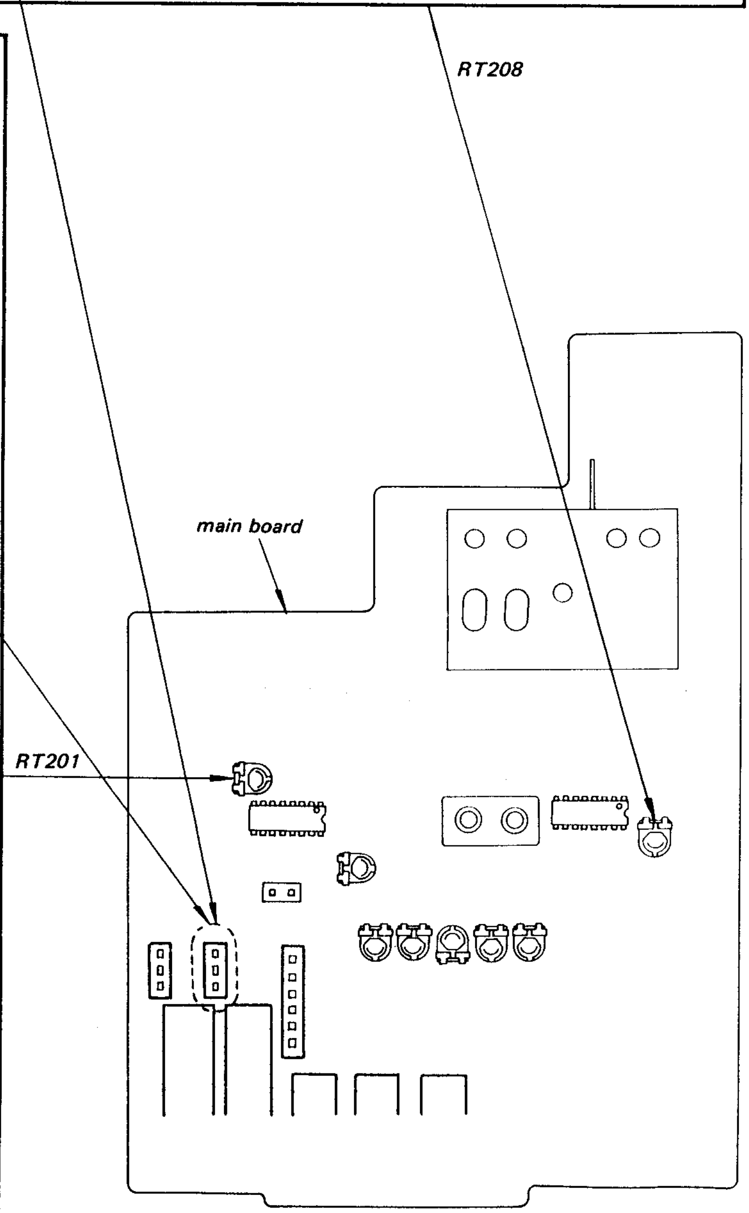
*Carrier frequency:* *98MHz*
*Output level:* *1mV (60dB)*
*Modulation:*
*Audio (400Hz): 16.25kHz deviation*
*Pilot (19kHz): 7.5kHz deviation*
*Sub channel (38kHz): 16.25kHz deviation*

**Procedure:**

| FM stereo signal generator output channel | VTVM connection | VTVM reading (dB) |
|---|---|---|
| L-CH | L-CH | Ⓐ |
| R-CH | L-CH | Ⓑ<br>Adjust RT201 for minimum reading. |
| R-CH | R-CH | Ⓒ |
| L-CH | R-CH | Ⓓ<br>Adjust RT201 for minimum reading. |

L-CH Stereo separation: Ⓐ – Ⓑ
R-CH Stereo separation: Ⓒ – Ⓓ

The difference between separations Ⓐ—Ⓑ and Ⓒ—Ⓓ are to be equal.

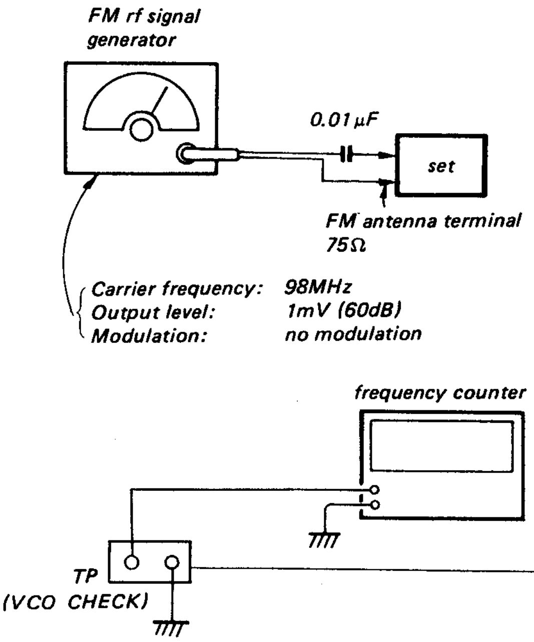

RT208
main board
RT201

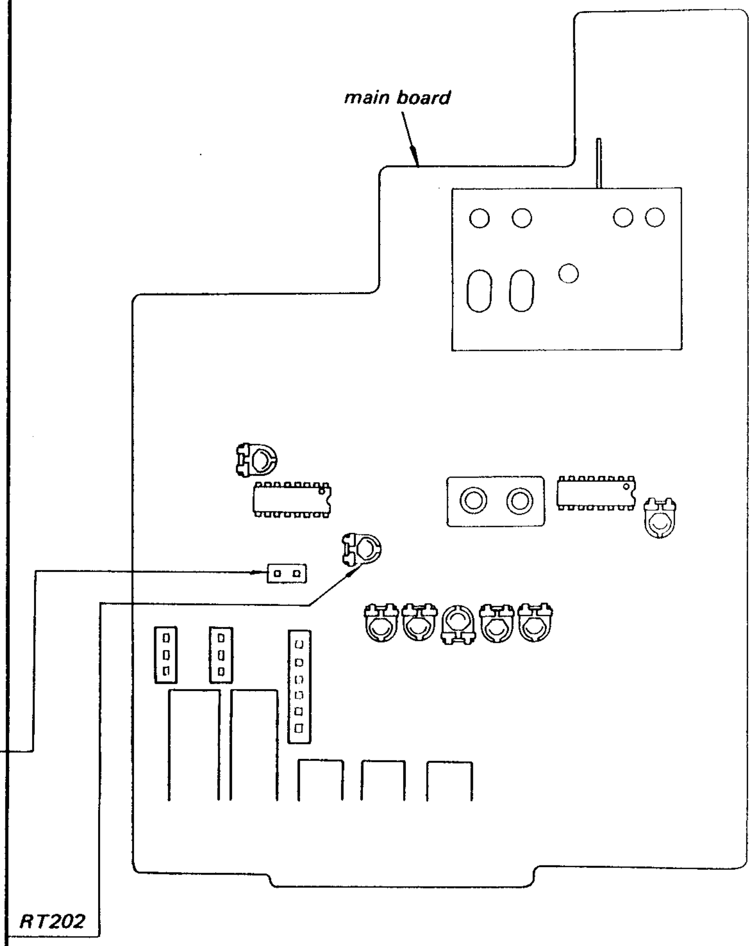
## 19kHz VCO ADJUSTMENT

**Setting:**

FUNCTION switch: TUNER
Band Selector: FM
MODE switch: STEREO

### A) Regular Method


FM rf signal generator
0.01µF
set
FM antenna terminal 75Ω
Carrier frequency: 98MHz
Output level: 1mV (60dB)
Modulation: no modulation
frequency counter
TP (VCO CHECK)

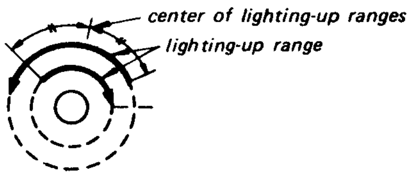

main board
RT202

**Procedure:**

Adjust RT202 for 19kHz ±50Hz on the frequency counter.

### B) Simple Method

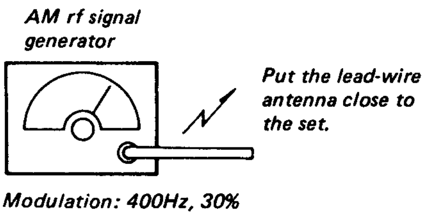
1. Tune the set to the FM stereo broadcasting signal.
2. Turn RT202 clockwise or counterclockwise and memorize the lighting-up ranges of STEREO lamp.
3. Secure RT202 at the center of the overlapped lighting-up range in both turning directions as shown below.

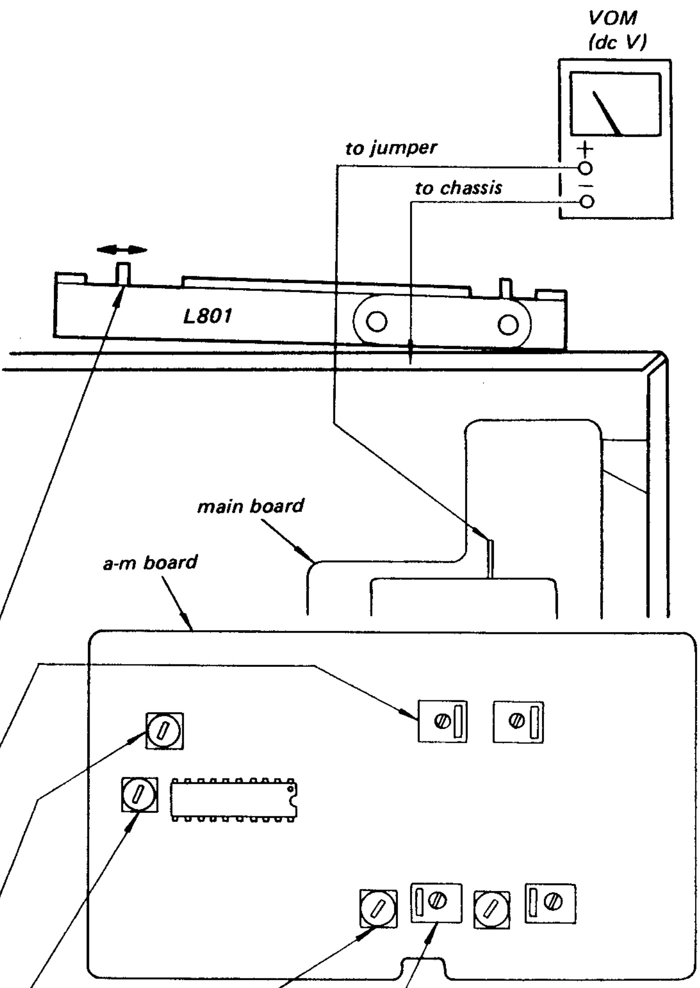

center of lighting-up ranges
lighting-up range

## AM SECTION

(1) Setting:

MANUAL TUNING switch: ON
Band Selector: MW


AM rf signal generator
Put the lead-wire antenna close to the set.
Modulation: 400Hz, 30%


VOM (dc V)
to jumper
to chassis
+
−
L801
main board
a-m board

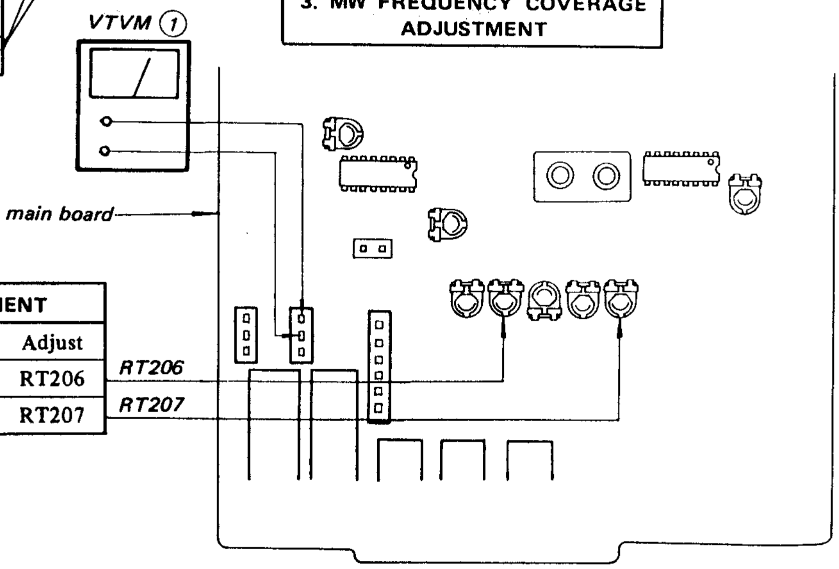
- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

| 4. MW TRACKING ADJUSTMENT | |
|---|---|
| Adjust for a maximum reading on VTVM ①. | |
| 600kHz | L801 |
| 1,400kHz | CT303 |

T301
T302

| 1. AM IF ALIGNMENT | |
|---|---|
| Adjust for a maximum reading on VTVM ①. | |
| 450kHz | T301, T302 |

| L305 | CT301 |
|---|---|
| 515kHz | 1,660kHz |
| Set dial pointer to lowest frequency. | Set dial pointer to highest frequency. |
| Adjust for a maximum reading on VTVM ①. | |
| 3. MW FREQUENCY COVERAGE ADJUSTMENT | |

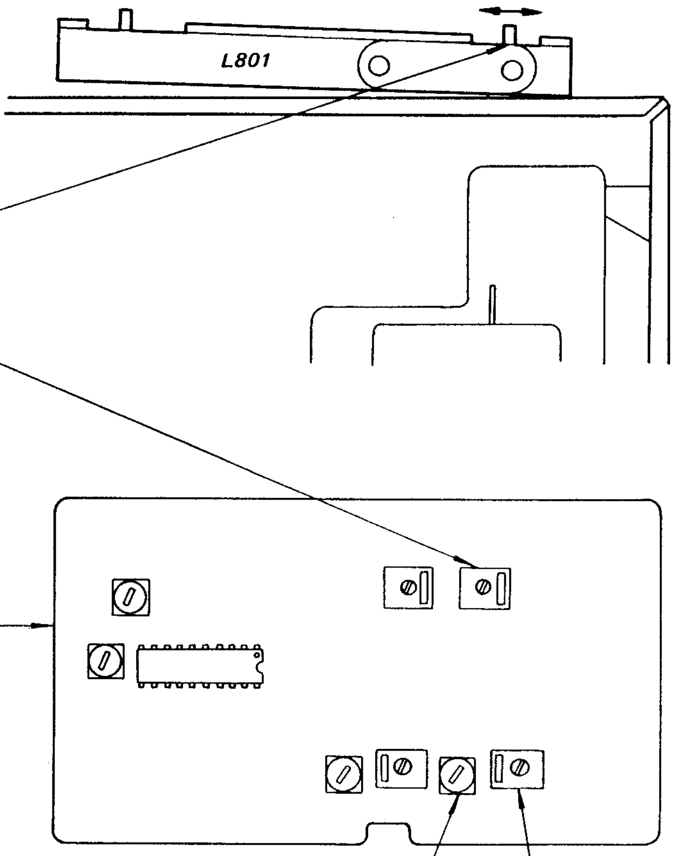

VTVM ①
main board
RT206
RT207

| 2. AM TUNING VOLTAGE ADJUSTMENT | | |
|---|---|---|
| Dial Indication | VOM Reading | Adjust |
| highest frequency | 25V | RT206 |
| lowest frequency | 1V | RT207 |

**(2) Setting:**

MANUAL TUNING switch: ON
Band Selector: LW

| **LW TRACKING ADJUSTMENT** | |
|---|---|
| Adjust for a maximum reading on VTVM ①. | |
| 170kHz | L801 |
| 310kHz | CT304 |



| L306 | CT302 |
|---|---|
| 145kHz | 365kHz |
| Set dial pointer to lowest frequency. | Set dial pointer to highest frequency. |
| Adjust for a maximum reading on VTVM ①. | |
| **LW FREQUENCY COVERAGE ADJUSTMENT** | |

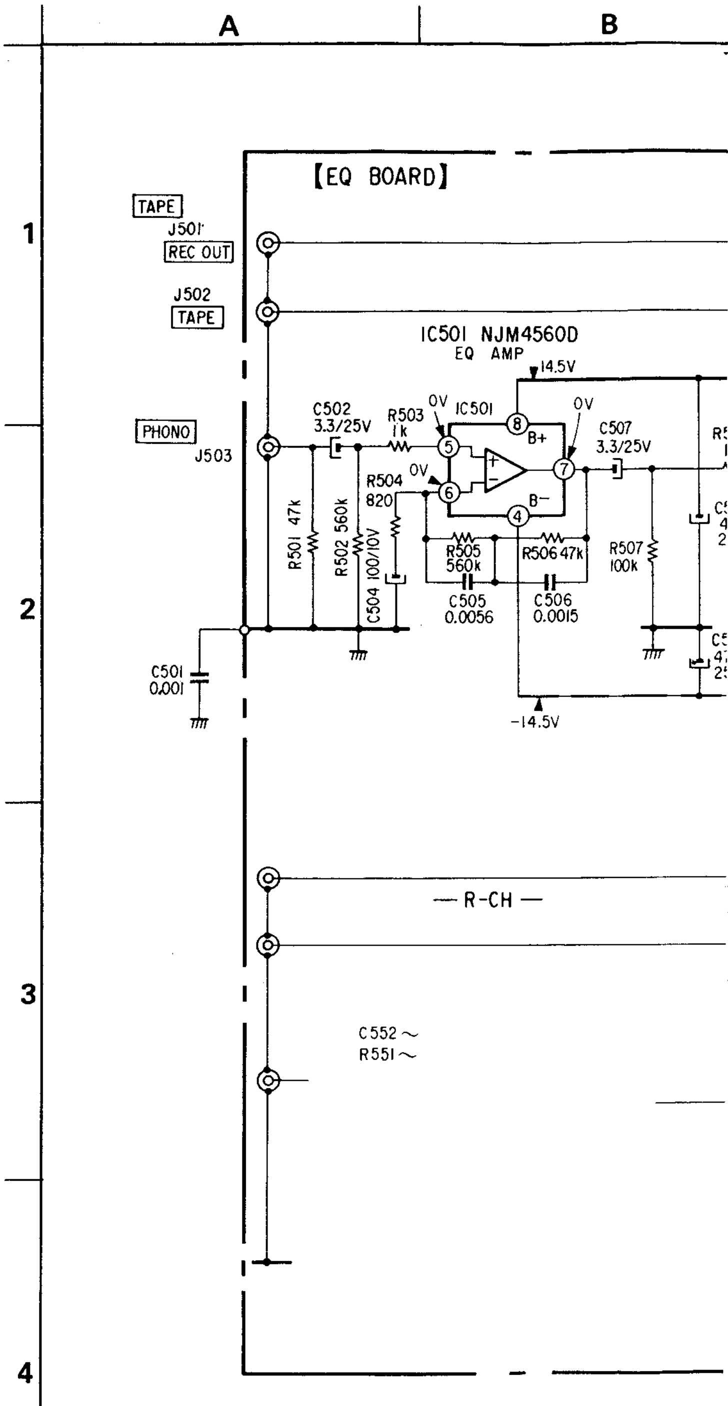
# SECTION 4
# DIAGRAMS

## 4-1. SCHEMATIC DIAGRAM
### — Audio Section —

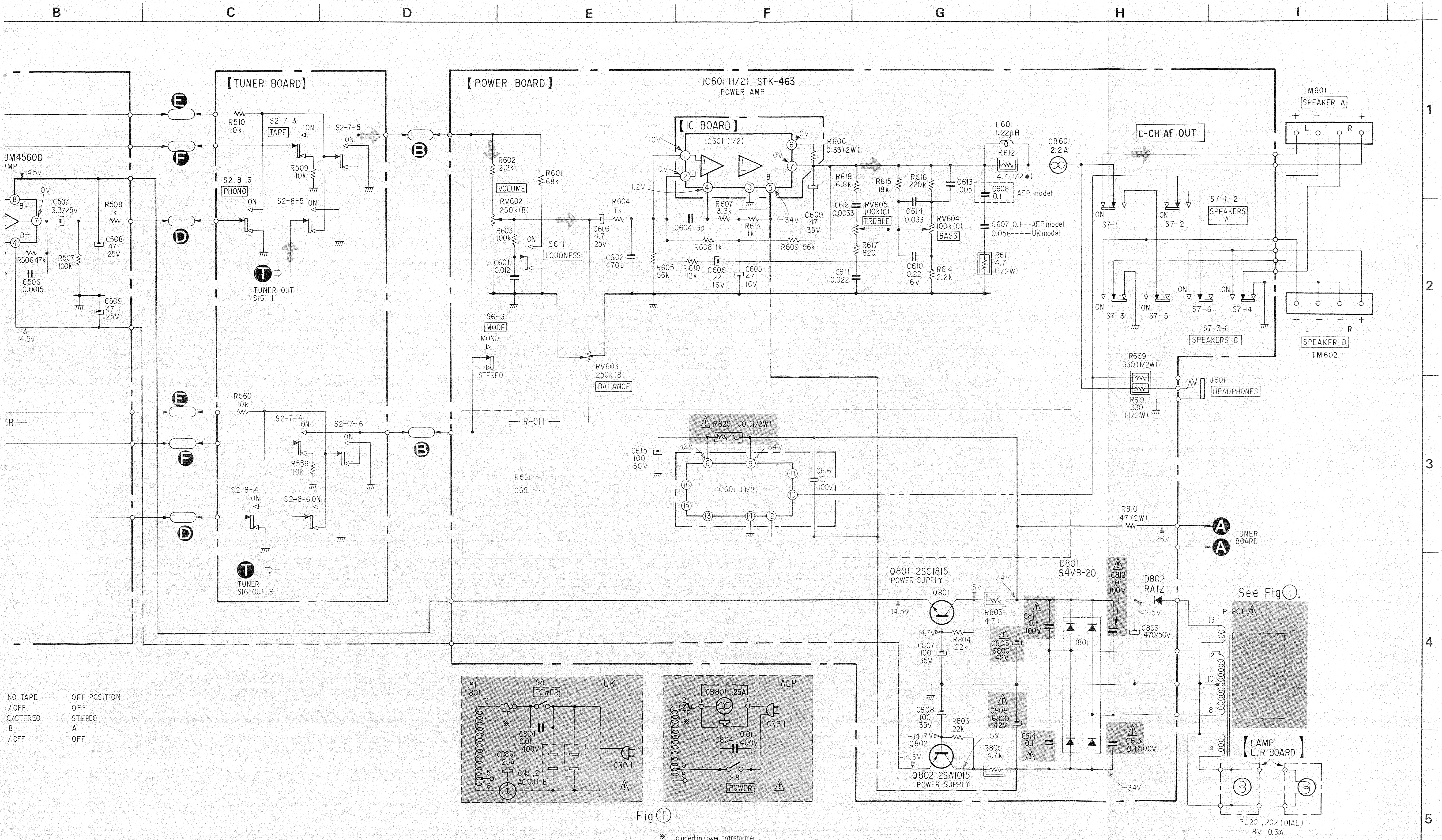
**Note:**

- All capacitors are in µF unless otherwise noted. pF : µµF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, ¼W unless otherwise noted. kΩ : 1000Ω, MΩ : 1000kΩ
- ⊣⏦⊢ : fusible resistor.
- ⊣▭⊢ : nonflammable resistor.
- △ : internal component.
- ▭ : panel designation.
- ▭ : adjustment for repair.
- ——— : B+ bus.
- – – – : B- bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- ➡ : signal path

**Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.**


A
B
1
2
3
4
[EQ BOARD]
TAPE
J501
REC OUT
J502
TAPE
PHONO
J503
IC501 NJM4560D
EQ AMP
14.5V
C502
3.3/25V
R503
1k
0V
IC501
0V
C507
3.3/25V
B+
B−
R504
820
0V
R501 47k
R502 560k
C504 100/10V
R505
560k
R506 47k
R507
100k
C505
0.0056
C506
0.0015
C501
0.001
−14.5V
— R-CH —
C552 ~
R551 ~

| | | | |
|---|---|---|---|
| S2 | FUNCTION | PHONO TAPE ----- | OFF POSITI |
| S6-1 | LOUDNESS | ON/OFF | OFF |
| S6-3 | MODE | MONO/STEREO | STEREO |
| S7,9 | SPEAKER | A, B | A |
| S8 | POWER | ON/OFF | OFF |

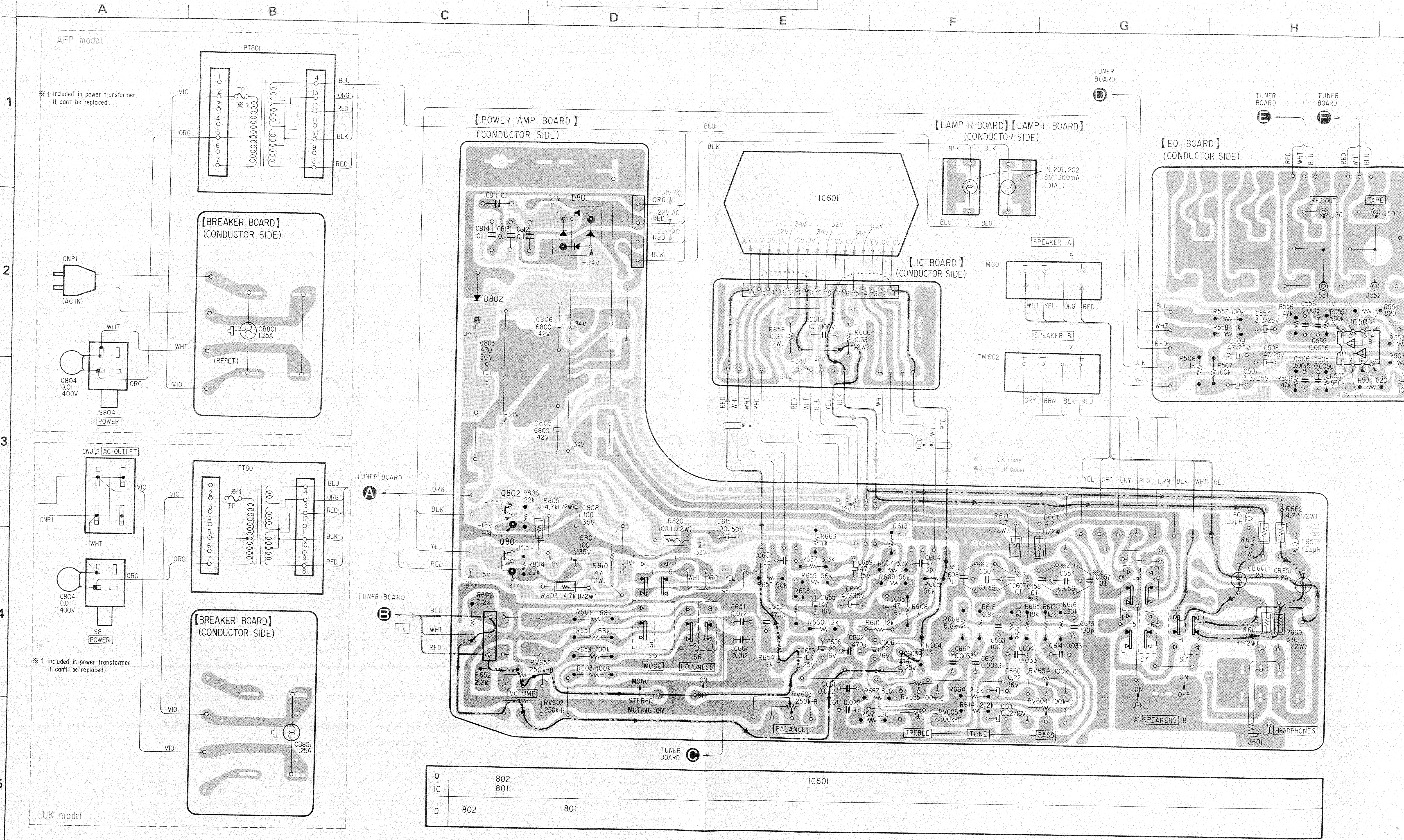

B
C
D
E
F
G
H
I
1
2
3
4
5
【TUNER BOARD】
【POWER BOARD】
IC601 (1/2) STK-463
POWER AMP
【IC BOARD】
IC601 (1/2)
JM4560D
R510 10k
S2-7-3 TAPE
S2-7-5
S2-8-3 PHONO
S2-8-5
R509 10k
TUNER OUT SIG L
R560 10k
S2-7-4
S2-7-6
R559 10k
S2-8-4
S2-8-6
TUNER SIG OUT R
C507 3.3/25V
R508 1k
C508 47 25V
R506 47k
R507 100k
C506 0.0015
C509 47 25V
14.5V
-14.5V
R602 2.2k
R601 68k
VOLUME
RV602 250k(B)
R603 100k
S6-1 LOUDNESS
C601 0.012
S6-3 MODE
MONO
STEREO
RV603 250k(B)
BALANCE
R604 1k
C603 4.7 25V
C602 470p
R605 56k
R610 12k
C606 22 16V
C605 47 16V
C604 3p
R607 3.3k
R613 1k
R608 1k
R609 56k
C609 47 35V
R606 0.33(2W)
R618 6.8k
R615 18k
R616 220k
C613 100p
C608 0.1
AEP model
C612 0.0033
RV605 100k(C)
TREBLE
C614 0.033
RV604 100k(C)
BASS
R617 820
C610 0.22 16V
R614 2.2k
C611 0.022
C607 0.1---AEP model
0.056-----UK model
R611 4.7 (1/2W)
L601 1.22μH
R612 4.7 (1/2W)
CB601 2.2A
L-CH AF OUT
TM601
SPEAKER A
S7-1-2
SPEAKERS A
S7-1
S7-2
S7-3
S7-5
S7-6
S7-4
S7-3~6
SPEAKERS B
SPEAKER B
TM602
R669 330 (1/2W)
R619 330 (1/2W)
J601
HEADPHONES
– R-CH –
R651~
C651~
R620 100 (1/2W)
C615 100 50V
C616 0.1 100V
IC601 (1/2)
32V
34V
R810 47 (2W)
26V
TUNER BOARD
D801 S4VB-20
C812 0.1 100V
D802 RA1Z
42.5V
C803 470/50V
See Fig①.
PT801
Q801 2SC1815
POWER SUPPLY
R803 4.7k
C811 0.1 100V
14.7V
R804 22k
C805 6800 42V
C807 100 35V
C808 100 35V
R806 22k
C806 6800 42V
C814 0.1
C813 0.1/100V
-14.7V
Q802
R805 4.7k
Q802 2SA1015
POWER SUPPLY
-34V
【LAMP L, R BOARD】
PL201,202 (DIAL) 8V 0.3A
PT 801
S8 POWER
UK
TP ※
C804 0.01 400V
CB801 1.25A
CNJ1,2 AC OUTLET
CNP1
AEP
CB801 1.25A
S8 POWER

Fig①

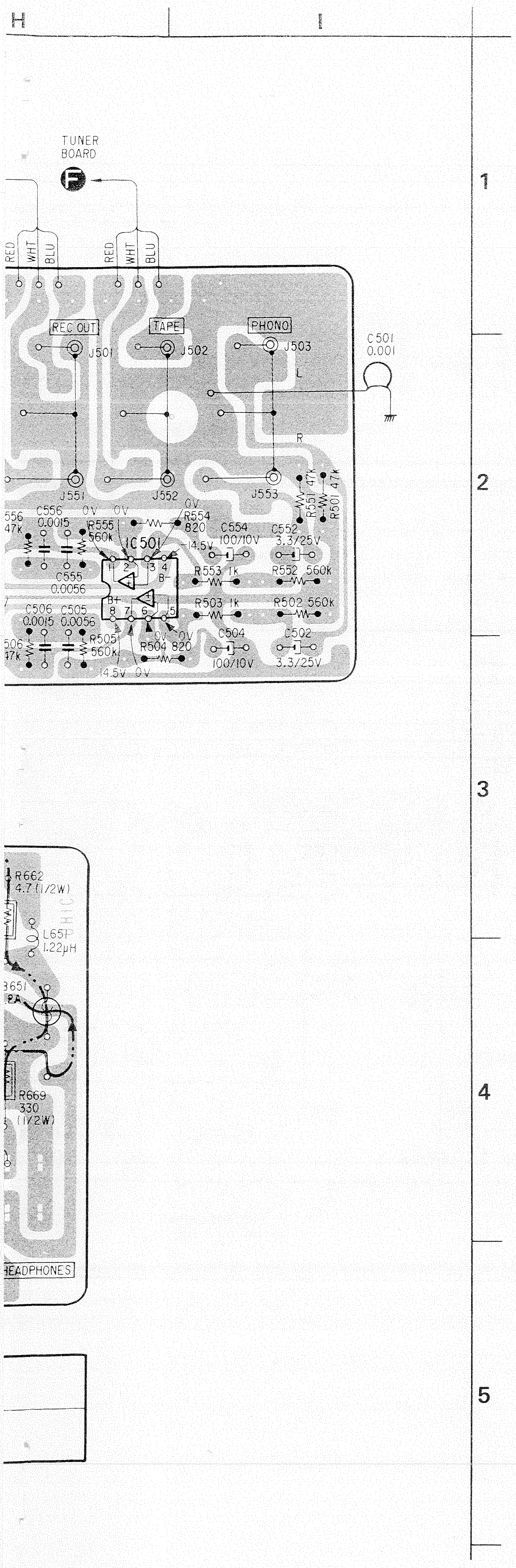
※ included in power transformer it can't be replaced

NO TAPE ----- OFF POSITION
/OFF OFF
O/STEREO STEREO
B A
/OFF OFF

## 4-2. MOUNTING DIAGRAM – Audio Section –

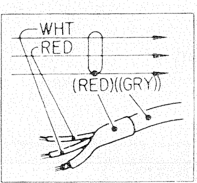

A
B
C
D
E
F
G
H
1
2
3
4
5
AEP model
UK model
PT801
※1 included in power transformer it can't be replaced.
【BREAKER BOARD】
(CONDUCTOR SIDE)
CB801 1.25A
(RESET)
CNP1
(AC IN)
C804 0.01 400V
S804 POWER
S8 POWER
CNJ1,2 AC OUTLET
【POWER AMP BOARD】
(CONDUCTOR SIDE)
D801
D802
Q801
Q802
【IC BOARD】
(CONDUCTOR SIDE)
IC601
【LAMP-R BOARD】【LAMP-L BOARD】
(CONDUCTOR SIDE)
PL201, 202 8V 300mA (DIAL)
SPEAKER A
SPEAKER B
TM601
TM602
【EQ BOARD】
(CONDUCTOR SIDE)
REC OUT
TAPE
J501
J502
J551
J552
IC501
TUNER BOARD
Ⓐ
Ⓑ
Ⓒ
Ⓓ
Ⓔ
Ⓕ
IN
※2 UK model
※3 AEP model
MODE
LOUDNESS
VOLUME
MONO
STEREO
MUTING ON
BALANCE
TREBLE
TONE
BASS
SPEAKERS
HEADPHONES
J601
S6
S7

|  |  |  |  |
|---|---|---|---|
| Q<br>IC | 802<br>801 |  | IC601 |
| D | 802 | 801 |  |


H
I
1
2
3
4
5
TUNER BOARD
F
RED
WHT
BLU
RED
WHT
BLU
REC OUT
J501
TAPE
J502
PHONO
J503
C501 0.001
L
R
J551
J552
J553
R551 47k
R501 47k
556 47k
C556 0.0015
R555 560k
IC501
0V
R554 820
C554 100/10V
C552 3.3/25V
14.5V
C555 0.0056
R553 1k
R552 560k
B+
B-
C506 0.0015
C505 0.0056
R503 1k
R502 560k
506 47k
R505 560k
R504 820
C504 100/10V
C502 3.3/25V
14.5V
0V
R662 4.7 (1/2W)
L651 1.22μH
R669 330 (1/2W)
HEADPHONES

Note:

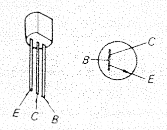
- Color code of sleeving over the end of the jacket.


WHT
RED
(RED)((GRY))

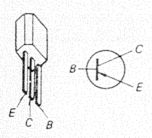
- ○—: parts extracted from the component side.
- ●—: parts extracted from the conductor side.
- [ ]⊢ : indicates side identified with part number.
- ⊡ : nonflammable resistor.
- ░ : B+ pattern
- ▓ : B- pattern
- ➡ : signal path
- ➡ : L-CH signal path
- ➡ : R-CH signal path

## Replacement Semiconductors

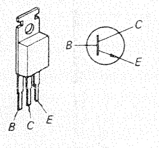
**2SC1364**
**2SC1815**



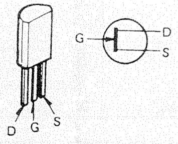
**2SA1015**



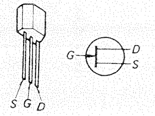
**2SC1173**



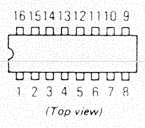
**2SK105A**



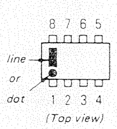
**2SK23**



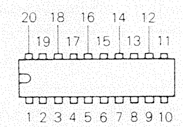
**LA1231**
**LA3361**


16 15 14 13 12 11 10 9
1 2 3 4 5 6 7 8
(Top view)

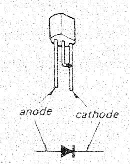
**TL489CP**


8 7 6 5
line or dot
1 2 3 4
(Top view)

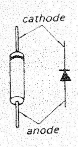
**LA1245**


20 18 16 14 12
19 17 15 13 11
1 2 3 4 5 6 7 8 9 10
(Top view)

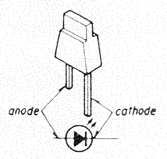
**μPC574J**


anode
cathode

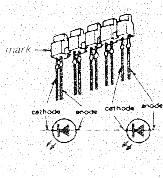
**1S1555**
**10E2**


cathode
anode

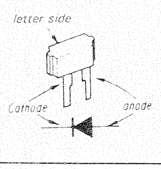
**SLP241B**
**SLP141B**


anode
cathode

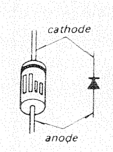
**SLP252B-06**
**SLP252B**


mark
cathode
anode
cathode
anode

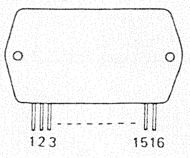
**KV1226**


letter side
Cathode
anode

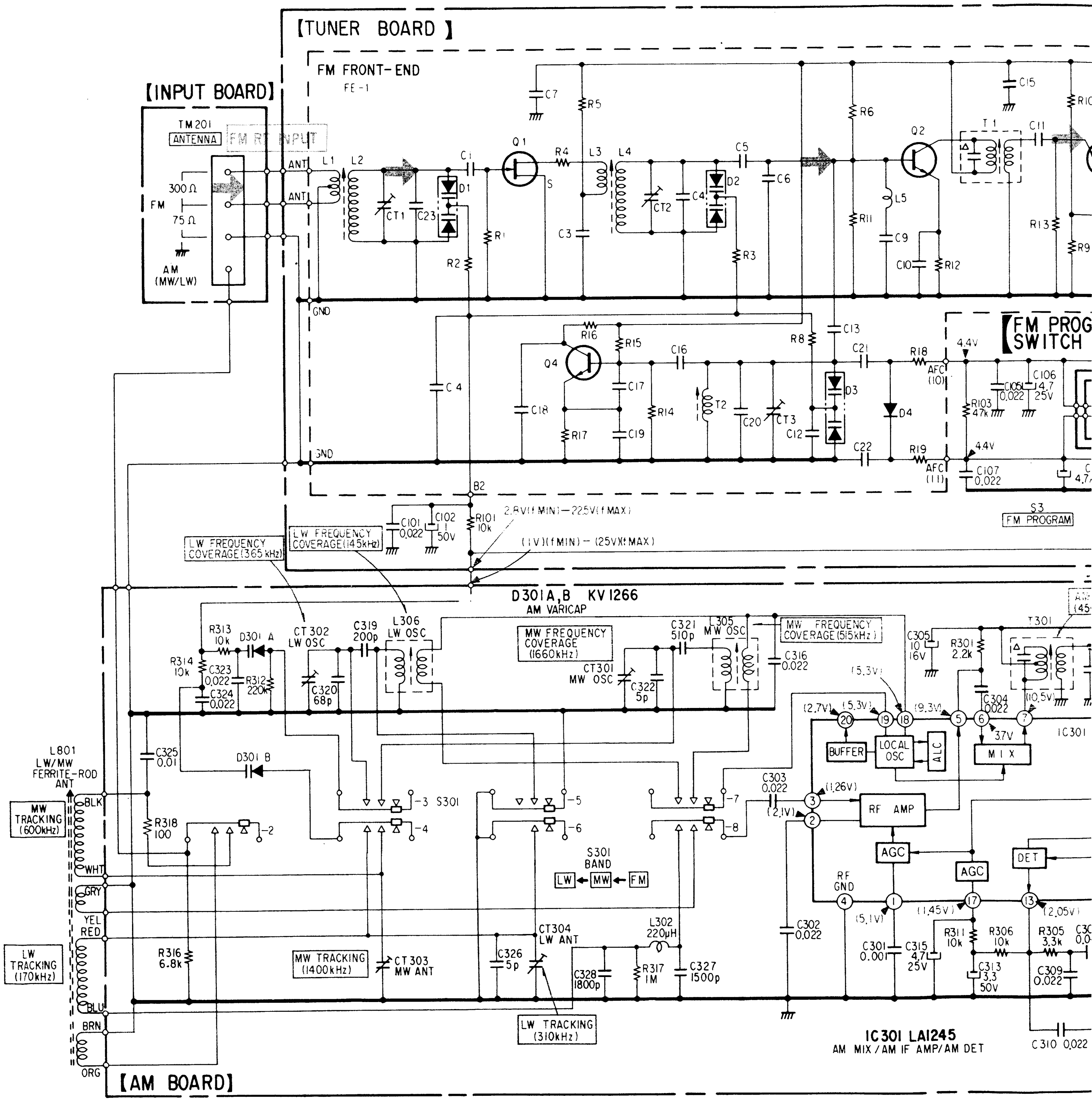
**EQB01-14**
**EQA01-14R**

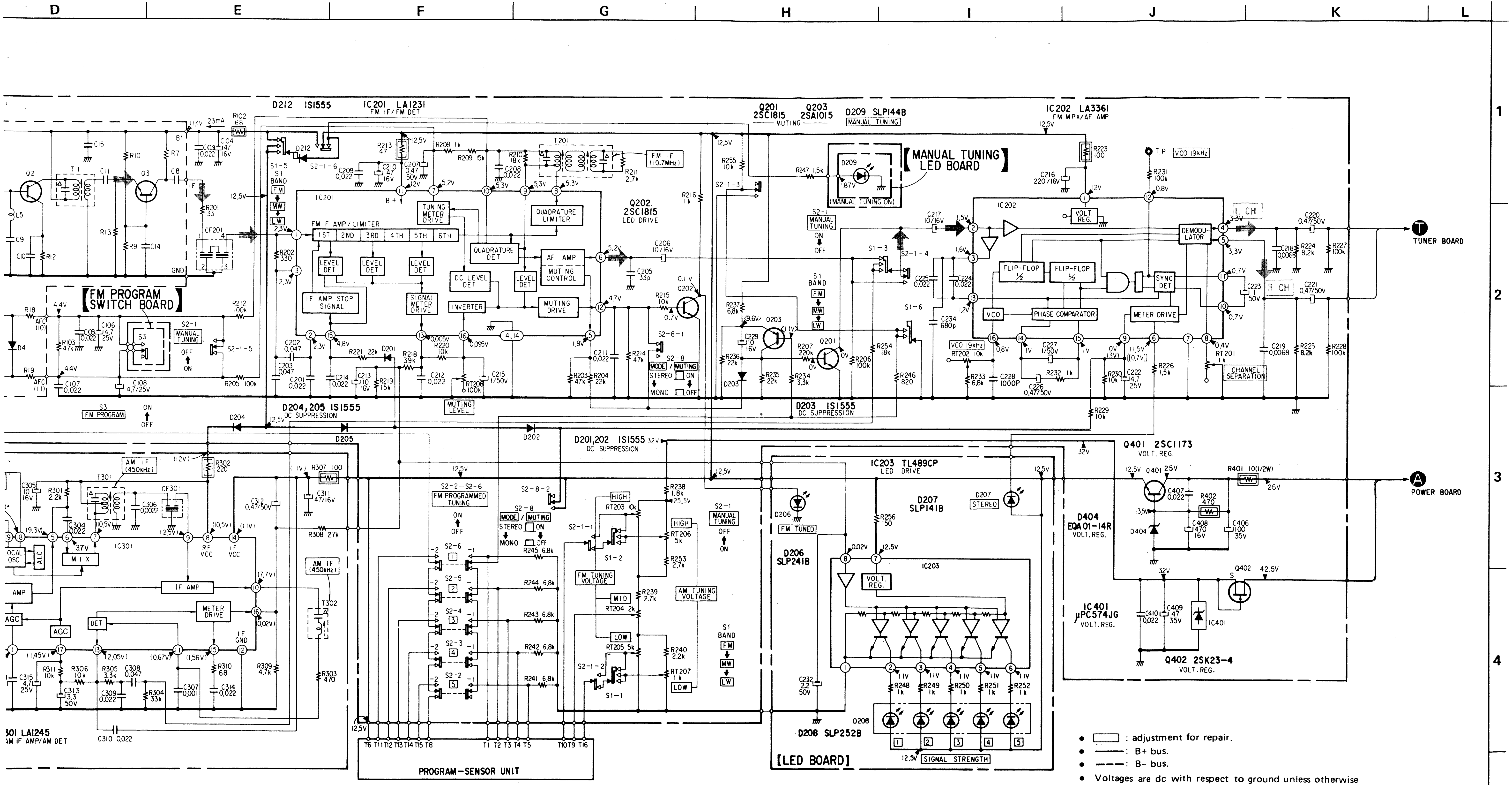

cathode
anode

**STK463**



## 4-3. SCHEMATIC DIAGRAM — Tuner Section —


A
B
C
D
1
2
3
4
5
【TUNER BOARD】
【INPUT BOARD】
TM201
ANTENNA
FM RF INPUT
300Ω
FM
75Ω
AM (MW/LW)
FM FRONT-END
FE-1
ANT
GND
L1
L2
CT1
C23
D1
C1
Q1
R1
R2
R4
L3
L4
C3
S
C7
R5
CT2
C4
D2
C5
C6
R3
R6
R11
L5
C9
C10
R12
Q2
T1
C11
C15
R13
R9
Q4
R16
R15
C16
C17
C18
R17
C19
R14
T2
C20
CT3
C12
D3
R8
C13
C21
R18
AFC (10)
C22
D4
R19
AFC (11)
4.4V
R103 47k
C105 0.022
C106 4.7 25V
C107 0.022
【FM PROGRAM SWITCH】
S3
FM PROGRAM
B2
C101 0.022
C102 1 50V
R101 10k
2.8V(f MIN)—22.5V(f MAX)
(1V)(f MIN)—(25V)(f MAX)
LW FREQUENCY COVERAGE(365kHz)
LW FREQUENCY COVERAGE(145kHz)
D301A,B KV1266
AM VARICAP
R313 10k
D301 A
R314 10k
C323 0.022
R312 220k
C324 0.022
CT302 LW OSC
C319 200p
L306 LW OSC
C320 68p
MW FREQUENCY COVERAGE (1660kHz)
CT301 MW OSC
C322 5p
C321 510p
L305 MW OSC
MW FREQUENCY COVERAGE(515kHz)
C316 0.022
C305 10 16V
R301 2.2k
T301
C304 0.022
L801 LW/MW FERRITE-ROD ANT
MW TRACKING (600kHz)
BLK
WHT
GRY
YEL
RED
BLU
BRN
ORG
LW TRACKING (170kHz)
C325 0.01
D301 B
R318 100
R316 6.8k
S301
-2
-3
-4
-5
-6
-7
-8
S301 BAND
LW ← MW ← FM
MW TRACKING (1400kHz)
CT303 MW ANT
C326 5p
CT304 LW ANT
C328 1800p
L302 220μH
R317 1M
C327 1500p
LW TRACKING (310kHz)
C303 0.022
(1.26V)
(2.1V)
(2.7V)
(5.3V)
(9.3V)
(10.5V)
37V
BUFFER
LOCAL OSC
ALC
MIX
RF AMP
AGC
DET
RF GND
C302 0.022
(5.1V)
(1.45V)
(2.05V)
C301 0.001
C315 4.7 25V
R311 10k
R306 10k
C313 3.3 50V
R305 3.3k
C309 0.022
C310 0.022
IC301
IC301 LA1245
AM MIX/AM IF AMP/AM DET
【AM BOARD】


D
E
F
G
H
I
J
K
L
1
2
3
4
5
D212 IS1555
IC201 LA1231
FM IF/FM DET
Q201 2SC1815
Q203 2SA1015
MUTING
D209 SLP144B
MANUAL TUNING
IC202 LA3361
FM MPX/AF AMP
【MANUAL TUNING LED BOARD】
T201
FM IF (10.7MHz)
FM IF AMP/LIMITER
1ST
2ND
3RD
4TH
5TH
6TH
LEVEL DET
TUNING METER DRIVE
QUADRATURE LIMITER
QUADRATURE DET
DC LEVEL DET
AF AMP
MUTING CONTROL
IF AMP STOP SIGNAL
SIGNAL METER DRIVE
INVERTER
MUTING DRIVE
MUTING LEVEL
Q202 2SC1815
LED DRIVE
【FM PROGRAM SWITCH BOARD】
S3 FM PROGRAM
ON
OFF
S1 BAND
FM
MW
LW
S2-1 MANUAL TUNING
MODE / MUTING
STEREO ON
MONO OFF
VCO 19kHz
T.P
L CH
R CH
DEMODULATOR
VOLT. REG.
FLIP-FLOP ½
SYNC DET
VCO
PHASE COMPARATOR
METER DRIVE
CHANNEL SEPARATION
TUNER BOARD
D204,205 IS1555
DC SUPPRESSION
D203 IS1555
DC SUPPRESSION
D201,202 IS1555
DC SUPPRESSION
Q401 2SC1173
VOLT. REG.
POWER BOARD
D404 EQA01-14R
VOLT. REG.
IC401 μPC574JG
VOLT. REG.
Q402 2SK23-4
VOLT. REG.
AM IF (450kHz)
T301
CF301
LOCAL OSC
ALC
MIX
AMP
AGC
DET
IF AMP
METER DRIVE
RF VCC
IF VCC
IF GND
T302
301 LA1245
AM IF AMP/AM DET
S2-2~S2-6
FM PROGRAMMED TUNING
HIGH
MID
LOW
FM TUNING VOLTAGE
AM TUNING VOLTAGE
PROGRAM-SENSOR UNIT
IC203 TL489CP
LED DRIVE
D207 SLP141B
D207 STEREO
D206 FM TUNED
D206 SLP241B
IC203
D208 SLP252B
【LED BOARD】
SIGNAL STRENGTH

- ▭ : adjustment for repair.
- ——: B+ bus.
- - - -: B- bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.

( ) : AM
〘 〙: tuned in FM STEREO signal
〈 〉: FM PROGRAMMED TUNING
no mark: Common

- ➡ : signal path.

**Note:**

- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, ¼W unless otherwise noted. kΩ : 1000Ω, MΩ : 1000kΩ

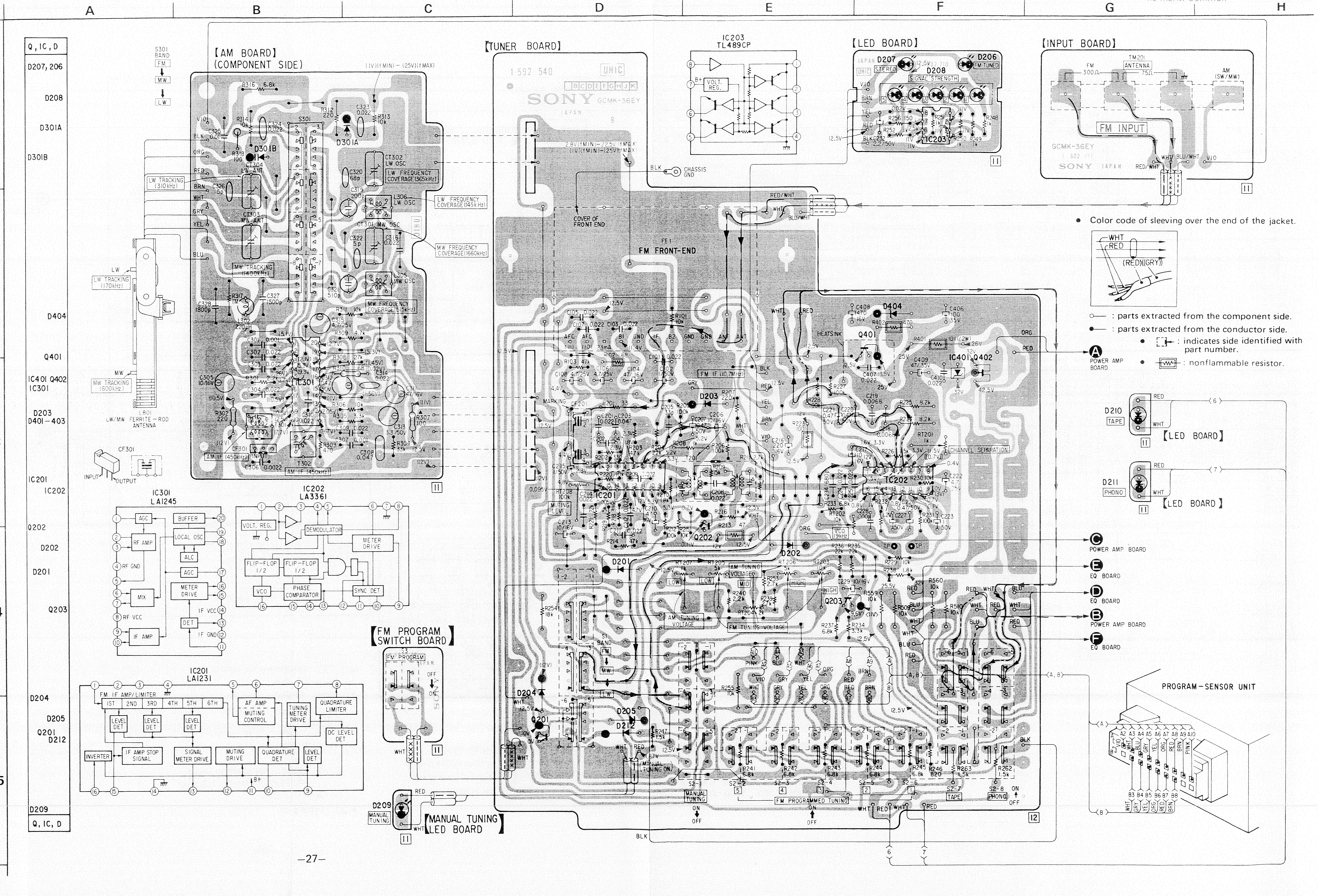
- -▭- : fusible resistor.
- -▭- : nonflammable resistor.
- △ : internal component.
- ▭ : panel designation.

## 4-4. MOUNTING DIAGRAM — Tuner Section —

▒ : B + pattern
⟹ : L-CH signal path
⟹ : R-CH signal path

- Readings are taken under no-signal conditions with a VOM (20kΩ/V).

( ) : AM
〔 〕 : tuned in FM STEREO signal
< > : FM PROGRAMMED TUNING
no mark: Common


A B C D E F G H
1 2 3 4 5
Q, IC, D
D207, 206
D208
D301A
D301B
D404
Q401
IC401 Q402
IC301
D203
D401 – 403
IC201
IC202
Q202
D202
D201
Q203
D204
D205
Q201
D212
D209
Q, IC, D
S301 BAND FM MW LW
【AM BOARD】 (COMPONENT SIDE)
LW TRACKING (310kHz)
LW TRACKING (170kHz)
MW TRACKING (600kHz)
MW TRACKING (1400kHz)
LW FREQUENCY COVERAGE (365kHz)
LW FREQUENCY COVERAGE (145kHz)
MW FREQUENCY COVERAGE (1660kHz)
MW FREQUENCY COVERAGE (515kHz)
CT302 LW OSC
CT304 LW ANT
CT303 MW ANT
CT301 MW OSC
L306 LW OSC
L305 MW OSC
AM IF (450kHz)
L801 LW/MW FERRITE-ROD ANTENNA
CF301 INPUT OUTPUT
IC301 LA1245
AGC BUFFER RF AMP LOCAL OSC ALC AGC METER DRIVE MIX DET IF AMP RF GND RF VCC IF VCC IF GND
IC202 LA3361
VOLT. REG. DEMODULATOR METER DRIVE FLIP-FLOP 1/2 FLIP-FLOP 1/2 VCO PHASE COMPARATOR SYNC DET
IC201 LA1231
FM IF AMP/LIMITER 1ST 2ND 3RD 4TH 5TH 6TH LEVEL DET AF AMP MUTING CONTROL TUNING METER DRIVE QUADRATURE LIMITER DC LEVEL DET INVERTER IF AMP STOP SIGNAL SIGNAL METER DRIVE MUTING DRIVE QUADRATURE DET LEVEL DET B+
【TUNER BOARD】
1-592-540 SONY GCMK-36EY JAPAN
IC203 TL489CP
B+ VOLT. REG.
FE1 FM FRONT-END
COVER OF FRONT END
BLK CHASSIS GND
FM IF (10.7MHz)
MUTING LEVEL
CHANNEL SEPARATION
VCO (19kHz)
AM TUNING VOLTAGE
FM TUNING VOLTAGE
S1 BAND FM MW LW
MANUAL TUNING ON
FM PROGRAMMED TUNING
S2-1 MANUAL TUNING ON OFF
S2-7 TAPE
S2-8 PHONO ON OFF
【LED BOARD】
D207 STEREO
D206 FM TUNED
D208 SIGNAL STRENGTH
【INPUT BOARD】
TM201 FM 300Ω ANTENNA 75Ω AM (SW/MW)
FM INPUT
GCMK-36EY SONY JAPAN
POWER AMP BOARD Ⓐ
POWER AMP BOARD Ⓒ
EQ BOARD Ⓔ
EQ BOARD Ⓓ
POWER AMP BOARD Ⓑ
EQ BOARD Ⓕ
D210 TAPE 【LED BOARD】
D211 PHONO 【LED BOARD】
【FM PROGRAM SWITCH BOARD】
S3 FM PROGRAM OFF ON
D209 MANUAL TUNING
【MANUAL TUNING LED BOARD】
PROGRAM-SENSOR UNIT
A2 A3 A4 A5 A6 A7 A8 A9 A10
B3 B4 B5 B6 B7 B8

- Color code of sleeving over the end of the jacket.

WHT RED (RED)(GRY)

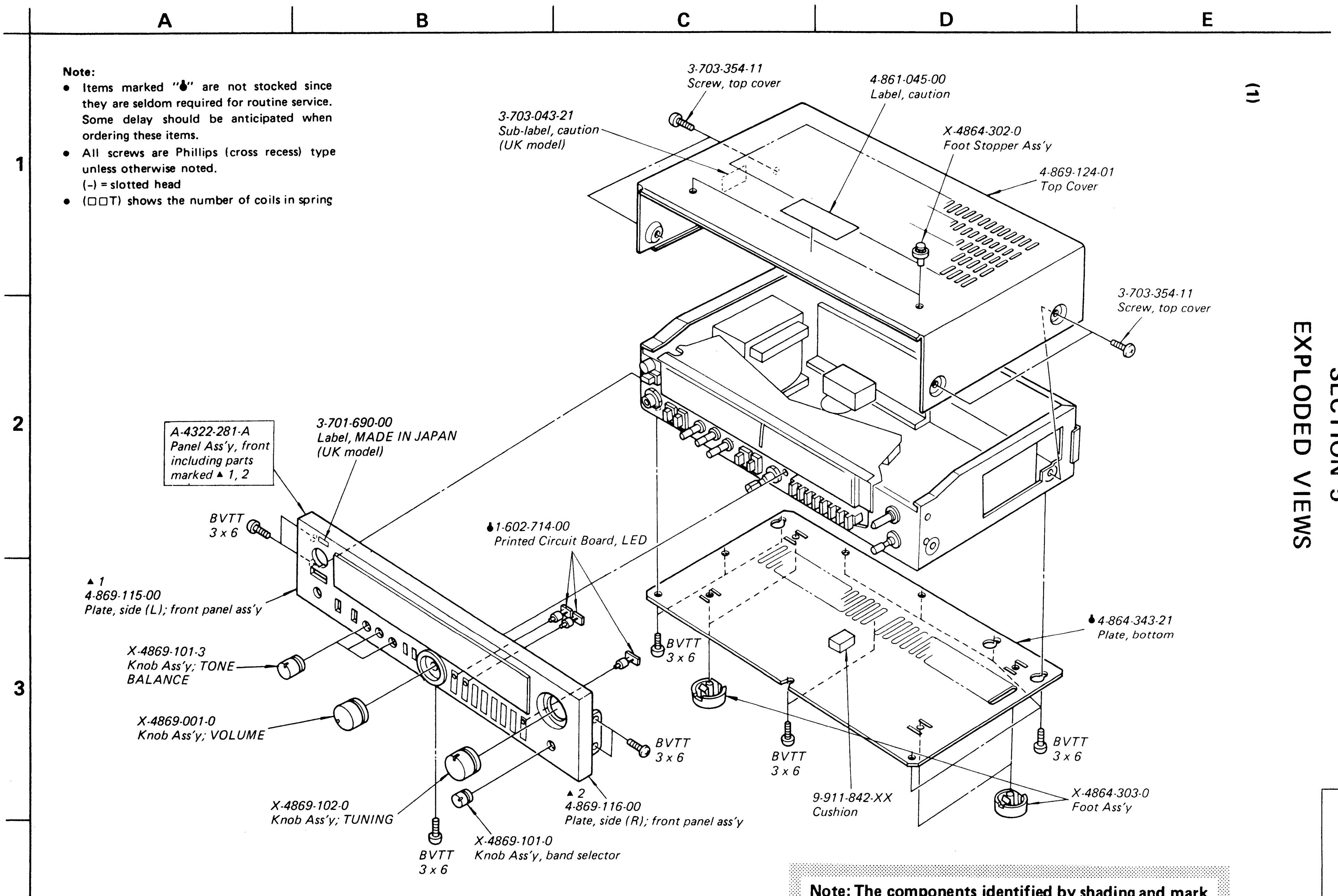
○— : parts extracted from the component side.
●— : parts extracted from the conductor side.

- [ ] : indicates side identified with part number.
- ▭ : nonflammable resistor.

# SECTION 5
# EXPLODED VIEWS

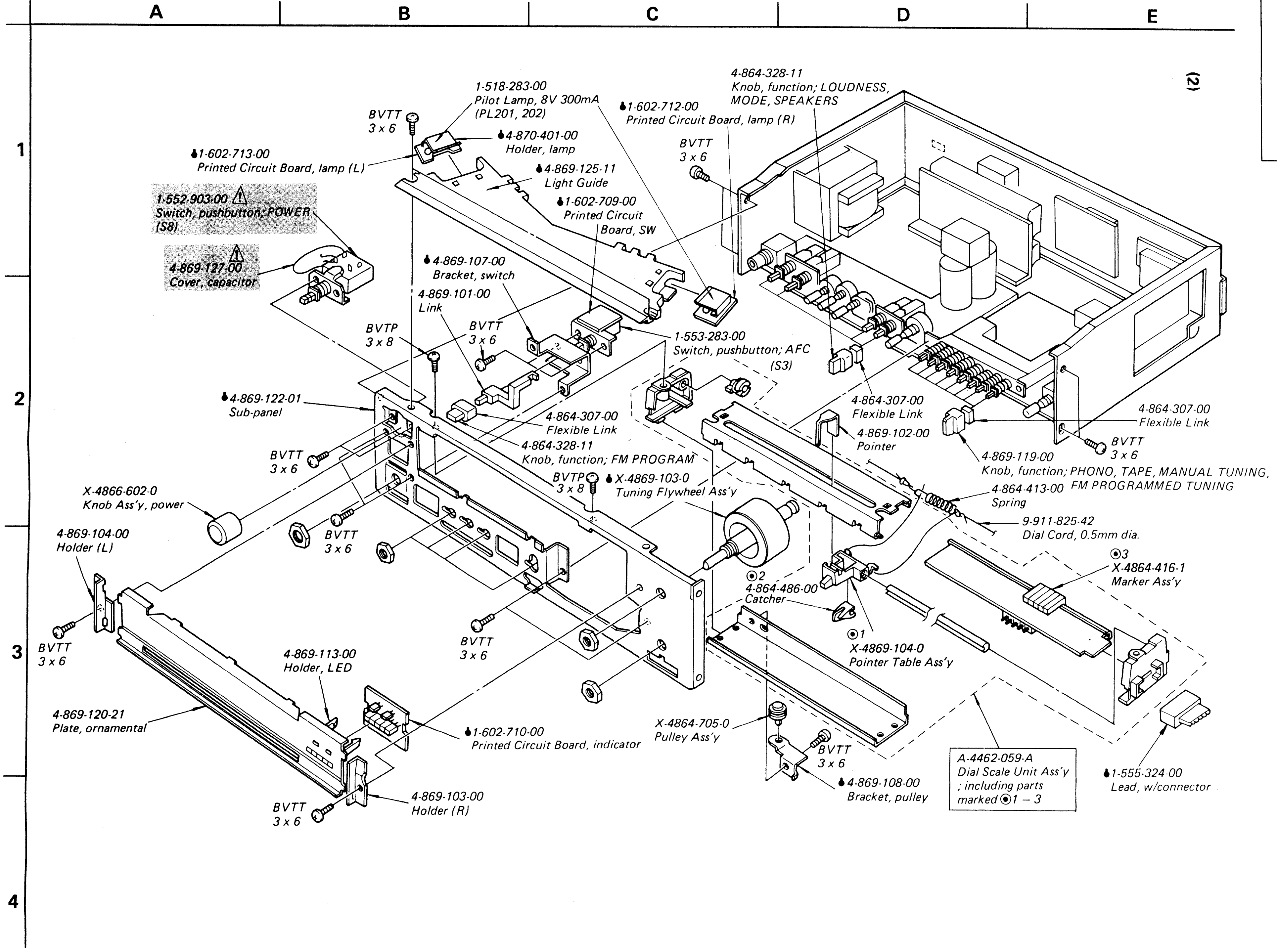
Note:
- Items marked "♦" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (-) = slotted head
- (□□T) shows the number of coils in spring

(1)

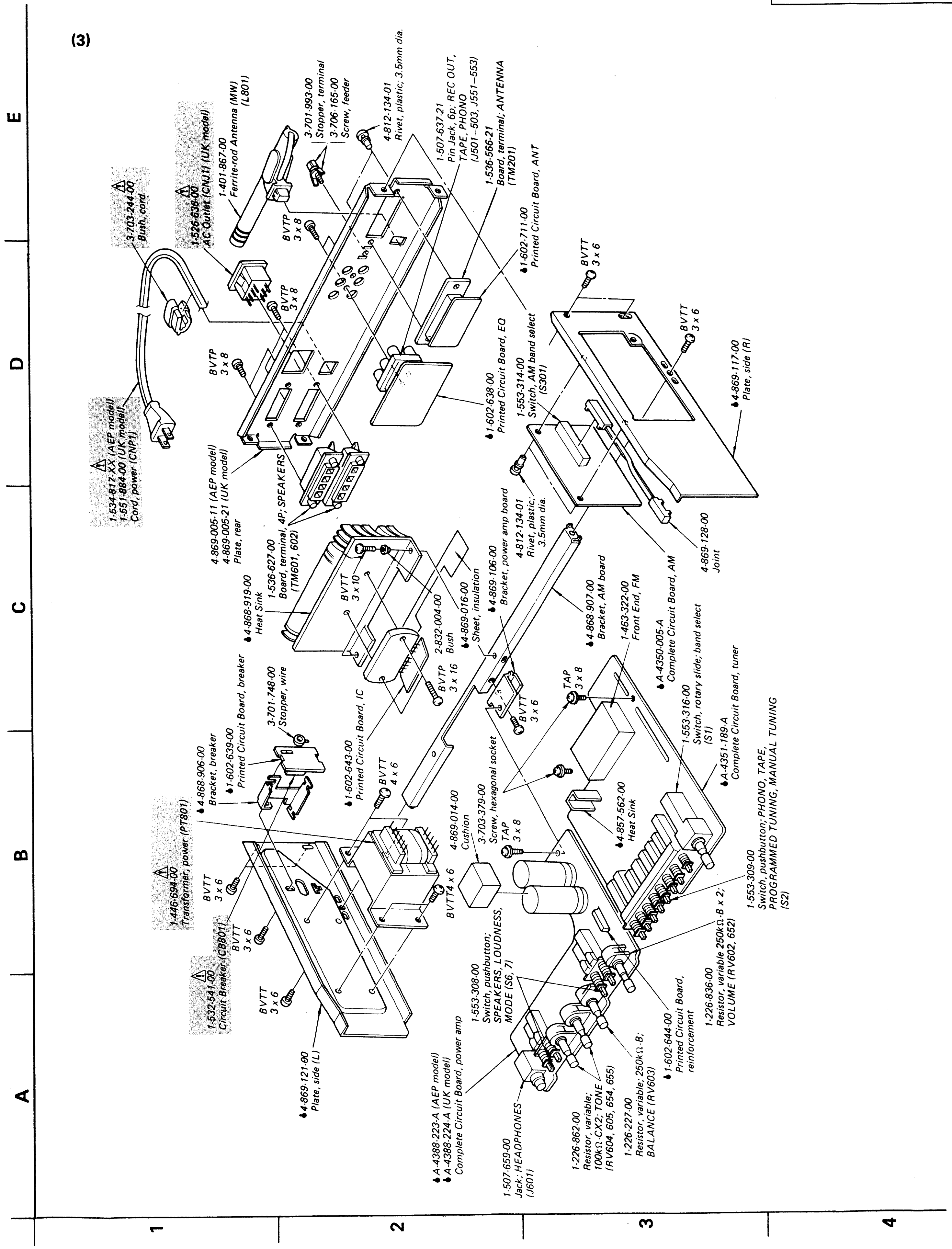

A
B
C
D
E
1
2
3
4
3-703-354-11
Screw, top cover
4-861-045-00
Label, caution
3-703-043-21
Sub-label, caution
(UK model)
X-4864-302-0
Foot Stopper Ass'y
4-869-124-01
Top Cover
3-703-354-11
Screw, top cover
A-4322-281-A
Panel Ass'y, front
including parts
marked ▲ 1, 2
3-701-690-00
Label, MADE IN JAPAN
(UK model)
BVTT
3 x 6
▲ 1
4-869-115-00
Plate, side (L); front panel ass'y
♦1-602-714-00
Printed Circuit Board, LED
♦4-864-343-21
Plate, bottom
X-4869-101-3
Knob Ass'y; TONE
BALANCE
BVTT
3 x 6
X-4869-001-0
Knob Ass'y; VOLUME
BVTT
3 x 6
BVTT
3 x 6
BVTT
3 x 6
▲ 2
4-869-116-00
Plate, side (R); front panel ass'y
X-4869-102-0
Knob Ass'y; TUNING
9-911-842-XX
Cushion
X-4864-303-0
Foot Ass'y
X-4869-101-0
Knob Ass'y, band selector
BVTT
3 x 6

**Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.**

(2)


A
B
C
D
E
1
2
3
4
1-518-283-00
Pilot Lamp, 8V 300mA
(PL201, 202)
♦1-602-712-00
Printed Circuit Board, lamp (R)
4-864-328-11
Knob, function; LOUDNESS,
MODE, SPEAKERS
BVTT
3 x 6
♦4-870-401-00
Holder, lamp
♦1-602-713-00
Printed Circuit Board, lamp (L)
BVTT
3 x 6
♦4-869-125-11
Light Guide
1-552-903-00 ⚠
Switch, pushbutton; POWER
(S8)
♦1-602-709-00
Printed Circuit
Board, SW
⚠
4-869-127-00
Cover, capacitor
♦4-869-107-00
Bracket, switch
4-869-101-00
Link
BVTP
3 x 8
BVTT
3 x 6
1-553-283-00
Switch, pushbutton; AFC
(S3)
♦4-869-122-01
Sub-panel
4-864-307-00
Flexible Link
4-864-307-00
Flexible Link
4-869-102-00
Pointer
4-864-307-00
Flexible Link
BVTT
3 x 6
4-864-328-11
Knob, function; FM PROGRAM
BVTT
3 x 6
4-869-119-00
Knob, function; PHONO, TAPE, MANUAL TUNING,
4-864-413-00 FM PROGRAMMED TUNING
Spring
BVTP
3 x 8
♦X-4869-103-0
Tuning Flywheel Ass'y
X-4866-602-0
Knob Ass'y, power
9-911-825-42
Dial Cord, 0.5mm dia.
BVTT
3 x 6
4-869-104-00
Holder (L)
⊙3
X-4864-416-1
Marker Ass'y
⊙2
4-864-486-00
Catcher
⊙1
X-4869-104-0
Pointer Table Ass'y
BVTT
3 x 6
BVTT
3 x 6
4-869-113-00
Holder, LED
4-869-120-21
Plate, ornamental
♦1-602-710-00
Printed Circuit Board, indicator
X-4864-705-0
Pulley Ass'y
BVTT
3 x 6
A-4462-059-A
Dial Scale Unit Ass'y
; including parts
marked ⊙1 – 3
♦1-555-324-00
Lead, w/connector
♦4-869-108-00
Bracket, pulley
4-869-103-00
Holder (R)
BVTT
3 x 6

(3)


E
D
C
B
A
1
2
3
4
⚠ 3-703-244-00 Bush, cord
⚠ 1-526-636-00 AC Outlet (CNJ1) (UK model)
1-401-867-00 Ferrite-rod Antenna (MW) (L801)
3-701-993-00 Stopper, terminal
3-706-165-00 Screw, feeder
4-812-134-01 Rivet, plastic; 3.5mm dia.
1-507-637-21 Pin Jack, 6p; REC OUT, TAPE, PHONO (J501–503, J551–553)
1-536-566-21 Board, terminal; ANTENNA (TM201)
♦1-602-711-00 Printed Circuit Board, ANT
BVTP 3 x 8
BVTT 3 x 6
⚠ 1-534-817-XX (AEP model) 1-551-884-00 (UK model) Cord, power (CNP1)
4-869-005-11 (AEP model) 4-869-005-21 (UK model) Plate, rear
1-536-627-00 Board, terminal, 4P; SPEAKERS (TM601, 602)
♦4-868-919-00 Heat Sink
BVTT 3 x 10
♦1-602-638-00 Printed Circuit Board, EQ
1-553-314-00 Switch, AM band select (S301)
♦4-869-117-00 Plate, side (R)
4-869-106-00 Bracket, power amp board
4-812-134-01 Rivet, plastic; 3.5mm dia.
4-869-128-00 Joint
♦4-869-016-00 Sheet, insulation
2-832-004-00 Bush
BVTP 3 x 16
♦4-868-907-00 Bracket, AM board
1-463-322-00 Front End, FM
♦A-4350-005-A Complete Circuit Board, AM
1-553-316-00 Switch, rotary slide; band select (S1)
♦A-4351-189-A Complete Circuit Board, tuner
1-553-309-00 Switch, pushbutton; PHONO, TAPE, PROGRAMMED TUNING, MANUAL TUNING (S2)
3-701-748-00 Stopper, wire
♦1-602-639-00 Printed Circuit Board, breaker
♦4-868-906-00 Bracket, breaker
♦1-602-643-00 Printed Circuit Board, IC
BVTT 4 x 6
TAP 3 x 8
BVTT 3 x 6
⚠ 1-446-694-00 Transformer, power (PT801)
⚠ 1-532-541-00 Circuit Breaker (CB801)
4-869-014-00 Cushion
3-703-379-00 Screw, hexagonal socket
♦4-857-562-00 Heat Sink
♦4-869-121-00 Plate, side (L)
♦A-4388-223-A (AEP model) ♦A-4388-224-A (UK model) Complete Circuit Board, power amp
1-553-308-00 Switch, pushbutton; SPEAKERS, LOUDNESS, MODE (S6, 7)
1-507-659-00 Jack; HEADPHONES (J601)
1-226-862-00 Resistor, variable; 100kΩ-CX2; TONE (RV604, 605, 654, 655)
1-226-227-00 Resistor, variable; 250kΩ-B; BALANCE (RV603)
♦1-602-644-00 Printed Circuit Board, reinforcement
1-226-836-00 Resistor, variable 250kΩ-B x 2; VOLUME (RV602, 652)

# SECTION 6
# ELECTRICAL PARTS LIST

### SEMICONDUCTORS

#### Transistors

| *Ref. No.* | *Part No.* | *Description* |
|---|---|---|
| Q201, 202 | 8-729-663-47 | 2SC1364 |
| Q203 | 8-729-201-52 | 2SA1015 |
| Q401 | 8-729-217-33 | 2SC1173 |
| Q402 | 8-729-105-40 | 2SK105A |
| Q801 | 8-729-663-47 | 2SC1364 |
| Q802 | 8-729-201-52 | 2SA1015 |

#### ICs

| *Ref. No.* | *Part No.* | *Description* |
|---|---|---|
| IC201 | 8-759-812-31 | LA1231 |
| IC202 | 8-759-833-61 | LA3361 |
| IC203 | 8-759-904-89 | TL489CP |
| IC301 | 8-759-812-45 | LA1245 |
| IC401 | 8-759-157-40 | μPC574J |
| IC501 | 8-759-745-61 | NJM4560D-D |
| IC601 | 8-759-846-30 | STK463 |

#### Diodes

| *Ref. No.* | *Part No.* | *Description* |
|---|---|---|
| D201–204 | 8-719-815-55 | 1S1555 |
| D206 | 8-719-922-41 | SLP241B |
| D207 | 8-719-900-41 | SLP141B |
| D208 | 8-719-925-26 | LED Block SLP252B |
| D209–211 | 8-719-901-44 | SLP144B |
| D212 | 8-719-815-55 | 1S1555 |
| D301 | 8-719-912-27 | KV1226 |
| D404 | 8-719-931-14 | EQB01-14 |
| D801 | 8-719-504-40 | S4VB40 |
| D802 | 8-719-200-02 | 10E2 |

### CAPACITORS

All capacitors are in μF. Common capacitors are omitted. Refer to the lists on pages 34 and 35 for their part numbers.

| | | | | |
|---|---|---|---|---|
| C502, 552<br>C507, 557 | 1-121-913-00 | 3.3 | 25V | elect |
| C616 | 1-108-389-00 | 0.1 | 100V | mylar |
| C803 | ⚠1-123-516-00 | 470 | 50V | elect |
| C804 | ⚠1-161-744-00 | 0.01 | 400V | ceramic |
| C805, 806 | ⚠1-125-157-00 | 6800 | 42V | elect |
| C811–814 | ⚠1-108-389-00 | 0.1 | 100V | mylar |
| CT301–304 | 1-141-171-XX | Trimmer | | |

### RESISTORS

All resistors are in ohms. Common ¼W carbon resistors are omitted. Refer to the list on the last page for their part numbers.

| | | | | |
|---|---|---|---|---|
| R102 | 1-247-103-00 | 68 | | carbon (nonflammable) |
| R213 | 1-247-099-00 | 47 | | carbon (nonflammable) |
| R223 | 1-247-107-00 | 100 | | carbon (nonflammable) |
| R302 | 1-247-115-00 | 220 | | carbon (nonflammable) |
| R307 | 1-247-107-00 | 100 | | carbon (nonflammable) |
| R401 | 1-247-192-00 | 10 | ½W | carbon (nonflammable) |
| R402 | 1-247-123-00 | 470 | | carbon (nonflammable) |
| R606, 656 | 1-207-615-00 | 0.33 | 2W | metal plate |
| R611, 661<br>R612, 662 | 1-247-188-00 | 4.7 | ½W | carbon (nonflammable) |
| R619, 669 | 1-247-228-00 | 330 | ½W | carbon (nonflammable) |
| R620 | ⚠1-212-982-00 | 100 | ¼W | fusible |
| R803, 805 | 1-247-256-00 | 4.7k | ½W | carbon (nonflammable) |
| R810 | 1-206-479-11 | 47 | 2W | metal oxide |
| RT201, 207 | 1-226-233-00 | 1k, adjustable; | | |
| RT202, 203 | 1-226-236-00 | 10k-B, adjustable | | |
| RT204 | 1-226-234-00 | 2k, adjustable | | |
| RT205, 206 | 1-226-235-00 | 5k-B, adjustable | | |
| RT208 | 1-226-239-00 | 100k-B, adjustable | | |

- Items marked "♦" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

**Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.**

| *Ref. No.* | *Part No.* | *Description* |
|---|---|---|
| RV602, 652 | 1-226-836-00 | 250k/250k-B, variable; VOLUME |
| RV603 | 1-226-227-00 | 250k-B, variable; BALANCE |
| RV604,654<br>RV605,655 | 1-226-862-00 | 100k/100k-C, variable; TONE |

**MISCELLANEOUS**

| *Ref. No.* | *Part No.* | *Description* |
|---|---|---|
| CB601,651 | 1-532-564-00 | Breaker, circuit 2.2A |
| CB801 | ⚠1-532-541-00 | Breaker, circuit 1.25A |
| CF201 | 1-527-534-XX | Filter, solid state |
| CF301 | 1-527-599-00 | Filter, mechanical |
| CNJ1, 2 | ⚠1-526-636-00 | Outlet, ac (UK model) |
| CNP1 | ⚠1-551-884-00 | Cord, power (UK model) |
|  | ⚠1-534-817-XX | Cord, power (AEP model) |
| J501–503<br>J551–553 | 1-507-637-21 | Jack, pin 6P; PHONO, TAPE, REC OUT |
| ● J601 | 1-507-659-00 | Jack, HEADPHONES |
| L302 | 1-407-173-XX | 220µH, microinductor |
| L305 | 1-405-907-00 | Coil, MW OSC |
| L306 | 1-405-914-00 | Coil, LW OSC |
| ● L601, 651 | 1-420-872-00 | Coil, 1.22µH |
| L801 | 1-401-867-00 | Antenna, ferrite-rod (MW/LW) |
| PL201,202 | 1-518-283-00 | Lamp, pilot 8V 300mA |
| PT801 | ⚠1-446-694-00 | Transformer, power |
| S1 | 1-553-316-00 | Switch, rotary slide; Band Select |
| S2 | 1-553-309-00 | Switch, pushbutton; PHONO, TAPE, PROGRAMMED TUNING, MANUAL TUNING |
| S3 | 1-553-283-00 | Switch, pushbutton; AFC |
| S6, 7 | 1-553-308-00 | Switch, pushbutton; SPEAKERS, LOUDNESS, MODE |
| S8 | ⚠1-552-903-00 | Switch, pushbutton; POWER |
| S301 | 1-553-314-00 | Switch, AM band select |
| T201 | 1-404-170-00 | IFT |
| T301 | 1-409-348-00 | Coil, mechanical filter |
| T302 | 1-404-266-00 | IFT |
| TM201 | 1-536-566-21 | Terminal Board; ANTENNA |
| TM601,602 | 1-536-627-00 | Terminal Board; 4P |

| *Ref. No.* | *Part No.* | *Description* |
|---|---|---|
|  | 1-463-322-00 | Front End, FM |
|  | ● 1-555-324-00 | Lead, w/connector |

**COMPLETE CIRCUIT BOARDS**

| *Ref. No.* | *Part No.* | *Description* |
|---|---|---|
|  | ● A-4350-005-A | AM |
|  | ● A-4351-189-A | Tuner |
|  | ● A-4388-223-A | Power Amplifier (AEP model) |
|  | ● A-4388-224-A | Power Amplifier (UK model) |

**PRINTED CIRCUIT BOARDS**

| *Ref. No.* | *Part No.* | *Description* |
|---|---|---|
|  | ● 1-602-637-00 | Power Amp |
|  | ● 1-602-638-00 | Equalizer |
|  | ● 1-602-639-00 | Breaker |
|  | ● 1-602-643-00 | IC |
|  | ● 1-602-644-00 | Reinforcement |
|  | ● 1-602-709-00 | SW |
|  | ● 1-602-710-00 | Indicator |
|  | ● 1-602-711-00 | ANT |
|  | ● 1-602-712-00 | Lamp (R) |
|  | ● 1-602-713-00 | Lamp (L) |
|  | ● 1-602-714-00 | LED |

**ACCESSORIES AND PACKING MATERIALS**

| *Part No.* | *Description* |
|---|---|
| 1-501-184-00 | Antenna, feeder |
| 3-701-630-00 | Bag, polyethylene |
| 3-783-219-11 | Manual, instruction |
| 3-794-869-11 | Card, control |
| 4-864-354-00 | Sheet, polyethylene |
| 4-868-927-01 | Cushion (A) |
| 4-868-928-01 | Cushion (B) |
| 4-869-012-00 | Carton |
| 4-869-015-00 | Cushion, support |
| 3-794-963-11 | Leaflet, Dutch/Swedish (AEP model) |

## ELECTROLYTIC CAPACITORS

RATING →: Use the high voltage rated one.

| CAP. (μF) | 6.3 VOLT. | 10 VOLT. | 16 VOLT. | 25 VOLT. | 35 VOLT. | 50 VOLT. |
|---|---|---|---|---|---|---|
| | PART No. | PART No. | PART No. | PART No. | PART No. | PART No. |
| 0.47 | | | | | → | 1-121-726-00 |
| 1.0 | | | | | → | 1-121-391-00 |
| 2.2 | | | | | → | 1-121-450-00 |
| 3.3 | → | → | → | 1-121-392-00 | → | 1-121-393-00 |
| 4.7 | → | → | → | 1-121-395-00 | → | 1-121-396-00 |
| 10 | → | → | 1-121-651-00 | 1-121-398-00 | → | 1-121-738-00 |
| 22 | → | → | 1-121-479-00 | 1-121-480-00 | 1-121-662-00 | 1-121-152-00 |
| 33 | → | → | 1-121-403-00 | 1-121-404-00 | 1-121-652-00 | 1-121-405-00 |
| 47 | → | 1-121-352-00 | 1-121-409-00 | 1-121-410-00 | 1-121-653-00 | 1-121-411-00 |
| 100 | → | 1-121-414-00 | 1-121-415-00 | 1-121-416-00 | 1-121-357-00 | 1-121-417-00 |
| 220 | 1-121-419-00 | 1-121-420-00 | 1-121-421-00 | 1-121-422-00 | 1-121-261-00 | 1-121-423-00 |
| 330 | 1-121-751-00 | 1-121-805-00 | 1-121-521-00 | 1-121-654-00 | 1-121-655-00 | 1-121-656-00 |
| 470 | 1-121-424-00 | 1-121-425-00 | 1-121-426-00 | 1-121-733-00 | 1-121-361-00 | 1-121-810-00 |
| 1000 | – | 1-121-736-00 | 1-121-245-00 | 1-121-657-00 | 1-121-388-00 | 1-123-061-00 |
| 2200 | 1-121-658-00 | 1-121-659-00 | 1-121-660-00 | 1-123-067-00 | 1-121-984-00 | |
| 3300 | 1-121-661-00 | 1-123-075-00 | 1-123-071-00 | – | – | |

| CAP. (μF) | 100 VOLT. | 160 VOLT. | 250 VOLT. | 350 VOLT. |
|---|---|---|---|---|
| | PART No. | PART No. | PART No. | PART No. |
| 0.47 | – | – | – | – |
| 1.0 | 1-123-249-00 | 1-123-252-00 | 1-123-003-00 | 1-121-168-00 |
| 2.2 | 1-123-250-00 | 1-123-026-00 | – | 1-123-028-00 |
| 3.3 | 1-121-995-00 | – | 1-123-004-00 | 1-123-006-00 |
| 4.7 | 1-123-255-00 | 1-121-246-00 | 1-121-759-00 | 1-123-007-00 |
| 10 | 1-121-126-00 | 1-121-999-00 | 1-123-254-00 | 1-123-008-00 |
| 22 | 1-121-996-00 | 1-123-253-00 | 1-123-005-00 | 1-123-022-00 |
| 33 | 1-121-997-00 | 1-121-757-00 | | – |
| 47 | 1-123-251-00 | 1-121-919-00 | | – |
| 100 | 1-123-084-00 | – | | – |

## CERAMIC CAPACITORS

RATING

| CAP. (pF) | 50 VOLT. | CAP. (pF) | 50 VOLT. | CAP. (pF) | 50 VOLT. | CAP. (μF) | 50 VOLT. |
|---|---|---|---|---|---|---|---|
| | PART No. | | PART No. | | PART No. | | PART No. |
| 0.5 | 1-101-837-00 | 22 | 1-102-959-00 | 150 | 1-101-361-00 | 0.001 | 1-102-074-00 |
| 0.75 | 1-101-586-00 | 24 | 1-102-960-00 | 160 | 1-101-367-00 | 0.0012 | 1-102-118-00 |
| 1.0 | 1-102-934-00 | 27 | 1-102-961-00 | 180 | 1-102-976-00 | 0.0015 | 1-102-119-00 |
| 1.5 | 1-101-576-00 | 30 | 1-102-962-00 | 200 | 1-102-977-00 | 0.0018 | 1-102-120-00 |
| 2.0 | 1-102-935-00 | 33 | 1-102-963-00 | 220 | 1-102-978-00 | 0.0022 | 1-102-121-00 |
| 3 | 1-102-936-00 | 36 | 1-102-964-00 | 240 | 1-102-979-00 | 0.0027 | 1-102-122-00 |
| 4 | 1-102-937-00 | 39 | 1-102-965-00 | 270 | 1-102-980-00 | 0.0033 | 1-102-123-00 |
| 5 | 1-102-942-00 | 43 | 1-102-966-00 | 300 | 1-102-981-00 | 0.0039 | 1-102-124-00 |
| 6 | 1-102-943-00 | 47 | 1-101-880-00 | 330 | 1-102-820-00 | 0.0047 | 1-102-125-00 |
| 7 | 1-102-944-00 | 51 | 1-101-882-00 | 360 | 1-102-821-00 | 0.0056 | 1-102-126-00 |
| 8 | 1-102-945-00 | 56 | 1-101-884-00 | 390 | 1-102-822-00 | 0.0068 | 1-102-127-00 |
| 9 | 1-102-946-00 | 62 | 1-101-886-00 | 430 | 1-102-823-00 | 0.0082 | 1-102-128-00 |
| 10 | 1-102-947-00 | 68 | 1-101-888-00 | 470 | 1-102-824-00 | 0.01 | 1-102-129-00 |
| 11 | 1-102-948-00 | 75 | 1-101-890-00 | 510 | 1-101-059-00 | 0.022 | 1-101-005-00 |
| 12 | 1-102-949-00 | 82 | 1-102-971-00 | 560 | 1-102-115-00 | 0.047 | 1-101-006-00 |
| 13 | 1-102-950-00 | 91 | 1-102-972-00 | 680 | 1-102-116-00 | | |
| 15 | 1-102-951-00 | 100 | 1-102-973-00 | 820 | 1-102-117-00 | | |
| 16 | 1-102-952-00 | 110 | 1-102-815-00 | | | | |
| 18 | 1-102-953-00 | 120 | 1-102-816-00 | | | | |
| 20 | 1-102-958-00 | 130 | 1-101-081-00 | | | | |

0.001μF = 1,000pF

## CERAMIC (SEMICONDUCTOR) CAPACITORS

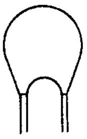
RATING →: Use the high voltage rated one.

| CAP. (μF) | 25 VOLT. | 50 VOLT. | CAP. (μF) | 25 VOLT. | 50 VOLT. |
|---|---|---|---|---|---|
| | PART No. | PART No. | | PART No. | PART No. |
| 0.001 | → | 1-161-039-00 | 0.018 | 1-161-016-00 | 1-161-054-00 |
| 0.0012 | → | 1-161-040-00 | 0.022 | 1-161-017-00 | 1-161-055-00 |
| 0.0015 | | 1-161-041-00 | 0.027 | 1-161-018-00 | 1-161-056-00 |
| 0.0018 | | 1-161-042-00 | 0.033 | 1-161-019-00 | 1-161-057-00 |
| 0.0022 | | 1-161-043-00 | 0.039 | 1-161-010-00 | 1-161-058-00 |
| 0.0027 | → | 1-161-044-00 | 0.047 | 1-161-021-00 | 1-161-059-00 |
| 0.0033 | → | 1-161-045-00 | 0.056 | → | 1-161-060-00 |
| 0.0039 | → | 1-161-046-00 | 0.068 | → | 1-161-061-00 |
| 0.0047 | → | 1-161-047-00 | 0.082 | 1-161-024-00 | 1-161-062-00 |
| 0.0056 | → | 1-161-048-00 | 0.1 | 1-161-025-00 | 1-161-063-00 |
| 0.0068 | → | 1-161-049-00 | | | |
| 0.0082 | 1-161-012-00 | 1-161-050-00 | | | |
| 0.01 | 1-161-013-00 | 1-161-051-00 | | | |
| 0.012 | → | 1-161-052-00 | | | |
| 0.015 | 1-161-015-00 | 1-161-053-00 | | | |

## MYLAR CAPACITORS

| RATING | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CAP. (μF) | 50 VOLT. | 100 VOLT. | 200 VOLT. | CAP. (μF) | 50 VOLT. | 100 VOLT. | 200 VOLT. | CAP. (μF) | 50 VOLT. | 100 VOLT. | 200 VOLT. |
| | PART No. | PART No. | PART No. | | PART No. | PART No. | PART No. | | PART No. | PART No. | PART No. |
| 0.001 | 1-108-227-00 | 1-108-365-00 | 1-108-409-00 | 0.01 | 1-108-239-00 | 1-108-377-00 | 1-108-421-00 | 0.1 | 1-108-251-00 | 1-108-389-00 | 1-108-433-00 |
| 0.0012 | 1-108-351-00 | 1-108-366-00 | 1-108-410-00 | 0.012 | 1-108-357-00 | 1-108-378-00 | 1-108-422-00 | 0.12 | 1-108-363-00 | 1-108-390-00 | 1-108-434-00 |
| 0.0015 | 1-108-228-00 | 1-108-367-00 | 1-108-411-00 | 0.015 | 1-108-240-00 | 1-108-379-00 | 1-108-423-00 | 0.15 | 1-108-252-00 | 1-108-391-00 | 1-108-435-00 |
| 0.0018 | 1-108-352-00 | 1-108-368-00 | 1-108-412-00 | 0.018 | 1-108-358-00 | 1-108-380-00 | 1-108-424-00 | 0.18 | 1-108-364-00 | 1-108-392-00 | 1-108-436-00 |
| 0.0022 | 1-108-230-00 | 1-108-369-00 | 1-108-413-00 | 0.022 | 1-108-242-00 | 1-108-381-00 | 1-108-425-00 | 0.22 | 1-108-254-00 | 1-108-393-00 | 1-108-437-00 |
| 0.0027 | 1-108-353-00 | 1-108-370-00 | 1-108-414-00 | 0.027 | 1-108-359-00 | 1-108-382-00 | 1-108-426-00 | 0.27 | 1-108-854-00 | – | – |
| 0.0033 | 1-108-232-00 | 1-108-371-00 | 1-108-415-00 | 0.033 | 1-108-244-00 | 1-108-383-00 | 1-108-427-00 | 0.33 | 1-108-855-00 | – | – |
| 0.0039 | 1-108-354-00 | 1-108-372-00 | 1-108-416-00 | 0.039 | 1-108-360-00 | 1-108-384-00 | 1-108-428-00 | 0.39 | 1-108-856-00 | – | – |
| 0.0047 | 1-108-234-00 | 1-108-373-00 | 1-108-417-00 | 0.047 | 1-108-246-00 | 1-108-385-00 | 1-108-429-00 | 0.47 | 1-108-857-00 | – | – |
| 0.0056 | 1-108-355-00 | 1-108-374-00 | 1-108-418-00 | 0.056 | 1-108-361-00 | 1-108-386-00 | 1-108-430-00 | | | | |
| 0.0068 | 1-108-237-00 | 1-108-375-00 | 1-108-419-00 | 0.068 | 1-108-249-00 | 1-108-387-00 | 1-108-431-00 | | | | |
| 0.0082 | 1-108-356-00 | 1-108-376-00 | 1-108-420-00 | 0.082 | 1-108-362-00 | 1-108-388-00 | 1-108-432-00 | | | | |

## TANTALUM CAPACITORS



| RATING | | | | →: Use the high voltage rated one. | | | |
|---|---|---|---|---|---|---|---|
| CAP. (μF) | 3.15 VOLT. | 6.3 VOLT. | 10 VOLT. | 16 VOLT. | 20 VOLT. | 25 VOLT. | 35 VOLT. |
| | PART No. | PART No. | PART No. | PART No. | PART No. | PART No. | PART No. |
| 0.01 | | | | | → | → | 1-131-396-00 |
| 0.015 | | | | | | → | 1-131-397-00 |
| 0.022 | | | | | | → | 1-131-398-00 |
| 0.033 | | | | | | → | 1-131-399-00 |
| 0.047 | | | | | | → | 1-131-400-00 |
| 0.068 | | | | | → | → | 1-131-401-00 |
| 0.1 | | | | | → | → | 1-131-402-00 |
| 0.15 | | | | | → | → | 1-131-403-00 |
| 0.22 | | | | | → | → | 1-131-404-00 |
| 0.33 | | | | | → | 1-131-409-00 | 1-131-405-00 |
| 0.47 | – | – | – | – | 1-131-412-00 | → | 1-131-406-00 |
| 0.68 | – | – | – | 1-131-415-00 | → | 1-131-410-00 | 1-131-407-00 |
| 1.0 | – | – | 1-131-418-00 | – | 1-131-413-00 | → | 1-131-408-00 |
| 1.5 | – | 1-131-421-00 | – | 1-131-416-00 | → | 1-131-411-00 | 1-131-348-00 |
| 2.2 | 1-131-424-00 | – | 1-131-419-00 | – | 1-131-414-00 | 1-131-355-00 | 1-131-349-00 |
| 3.3 | – | 1-131-422-00 | – | 1-131-417-00 | 1-131-362-00 | 1-131-356-00 | 1-131-350-00 |
| 4.7 | 1-131-425-00 | – | 1-131-420-00 | 1-131-369-00 | 1-131-363-00 | 1-131-357-00 | 1-131-351-00 |
| 6.8 | – | 1-131-423-00 | 1-131-376-00 | 1-131-370-00 | 1-131-364-00 | 1-131-358-00 | 1-131-352-00 |
| 10 | 1-131-426-00 | 1-131-383-00 | 1-131-377-00 | 1-131-371-00 | 1-131-365-00 | 1-131-359-00 | 1-131-353-00 |
| 15 | 1-131-390-00 | 1-131-384-00 | 1-131-378-00 | 1-131-372-00 | 1-131-366-00 | 1-131-360-00 | – |
| 22 | 1-131-391-00 | 1-131-385-00 | 1-131-379-00 | 1-131-373-00 | 1-131-367-00 | | |
| 33 | 1-131-392-00 | 1-131-386-00 | 1-131-380-00 | 1-131-374-00 | | | |
| 47 | 1-131-393-00 | 1-131-387-00 | 1-131-381-00 | – | | | |
| 68 | 1-131-394-00 | 1-131-388-00 | – | – | | | |
| 100 | 1-131-395-00 | – | – | – | | | |

## TANTALUM CAPACITORS

| RATING | | | | | | |
|---|---|---|---|---|---|---|
| CAP. (μF) | 3 VOLT. | 6.3 VOLT. | 10 VOLT. | 16 VOLT. | 20 VOLT. | 35 VOLT. |
| | PART No. | PART No. | PART No. | PART No. | PART No. | PART No. |
| 0.033 | | | | | | 1-131-273-00 |
| 0.047 | | | | | | 1-131-274-00 |
| 0.068 | | | | | | 1-131-275-00 |
| 0.1 | | | | | | 1-131-276-00 |
| 0.15 | | | | | | 1-131-277-00 |
| 0.22 | | | – | – | 1-131-262-00 | 1-131-278-00 |
| 0.33 | | | – | – | 1-131-263-00 | 1-131-279-00 |
| 0.47 | | | 1-131-169-00 | – | 1-131-264-00 | 1-131-280-00 |
| 0.68 | | | – | 1-131-258-00 | 1-131-265-00 | 1-131-281-00 |
| 1.0 | | | 1-131-254-00 | – | 1-131-266-00 | 1-131-282-00 |
| 1.5 | | 1-131-250-00 | – | – | 1-131-267-00 | 1-131-283-00 |
| 2.2 | | – | – | 1-131-259-00 | 1-131-268-00 | 1-131-284-00 |
| 3.3 | | – | 1-131-255-00 | – | 1-131-269-00 | – |
| 4.7 | | 1-131-251-00 | 1-131-171-00 | – | 1-131-270-00 | – |
| 6.8 | | – | – | 1-131-260-00 | 1-131-271-00 | – |
| 10 | – | – | 1-131-256-00 | – | 1-131-272-00 | – |
| 15 | – | 1-131-252-00 | – | 1-131-261-00 | | |
| 22 | – | – | 1-131-257-00 | – | | |
| 33 | 1-131-176-00 | 1-131-253-00 | 1-131-173-00 | – | | |
| 47 | 1-131-288-00 | 1-131-174-00 | – | – | | |
| 100 | 1-131-177-00 | | | | | |

## 1/4 WATT CARBON RESISTORS

| Ω | *Part No.* | Ω | *Part No.* | Ω | *Part No.* | Ω | *Part No.* | Ω | *Part No.* | Ω | *Part No.* | Ω | *Part No.* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.0 | 1-246-401-00 | 10 | 1-246-425-00 | 100 | 1-246-449-00 | 1.0k | 1-246-473-00 | 10k | 1-246-497-00 | 100k | 1-246-521-00 | 1.0M | 1-246-545-00 |
| 1.1 | 1-246-402-00 | 11 | 1-246-426-00 | 110 | 1-246-450-00 | 1.1k | 1-246-474-00 | 11k | 1-246-498-00 | 110k | 1-246-522-00 | 1.1M | 1-210-814-00 |
| 1.2 | 1-246-403-00 | 12 | 1-246-427-00 | 120 | 1-246-451-00 | 1.2k | 1-246-475-00 | 12k | 1-246-499-00 | 120k | 1-246-523-00 | 1.2M | 1-210-815-00 |
| 1.3 | 1-246-404-00 | 13 | 1-246-428-00 | 130 | 1-246-452-00 | 1.3k | 1-246-576-00 | 13k | 1-246-500-00 | 130k | 1-246-524-00 | 1.3M | 1-210-816-00 |
| 1.5 | 1-246-405-00 | 15 | 1-246-429-00 | 150 | 1-246-453-00 | 1.5k | 1-246-577-00 | 15k | 1-246-501-00 | 150k | 1-246-525-00 | 1.5M | 1-210-817-00 |
| 1.6 | 1-246-406-00 | 16 | 1-246-430-00 | 160 | 1-246-454-00 | 1.6k | 1-246-578-00 | 16k | 1-246-502-00 | 160k | 1-246-526-00 | 1.6M | 1-210-818-00 |
| 1.8 | 1-246-407-00 | 18 | 1-246-431-00 | 180 | 1-246-455-00 | 1.8k | 1-246-579-00 | 18k | 1-246-503-00 | 180k | 1-246-527-00 | 1.8M | 1-210-819-00 |
| 2.0 | 1-246-408-00 | 20 | 1-246-432-00 | 200 | 1-246-456-00 | 2.0k | 1-246-580-00 | 20k | 1-246-504-00 | 200k | 1-246-528-00 | 2.0M | 1-210-820-00 |
| 2.2 | 1-246-409-00 | 22 | 1-246-433-00 | 220 | 1-246-457-00 | 2.2k | 1-246-581-00 | 22k | 1-246-505-00 | 220k | 1-246-529-00 | 2.2M | 1-210-821-00 |
| 2.4 | 1-246-410-00 | 24 | 1-246-434-00 | 240 | 1-246-458-00 | 2.4k | 1-246-582-00 | 24k | 1-246-506-00 | 240k | 1-246-530-00 | 2.4M | 1-244-754-00 |
| 2.7 | 1-246-411-00 | 27 | 1-246-435-00 | 270 | 1-246-459-00 | 2.7k | 1-246-583-00 | 27k | 1-246-507-00 | 270k | 1-246-531-00 | 2.7M | 1-244-755-00 |
| 3.0 | 1-246-412-00 | 30 | 1-246-436-00 | 300 | 1-246-460-00 | 3.0k | 1-246-584-00 | 30k | 1-246-508-00 | 300k | 1-246-532-00 | 3.0M | 1-244-756-00 |
| 3.3 | 1-246-413-00 | 33 | 1-246-437-00 | 330 | 1-246-461-00 | 3.3k | 1-246-585-00 | 33k | 1-246-509-00 | 330k | 1-246-533-00 | 3.3M | 1-244-757-00 |
| 3.6 | 1-246-414-00 | 36 | 1-246-438-00 | 360 | 1-246-462-00 | 3.6k | 1-246-586-00 | 36k | 1-246-510-00 | 360k | 1-246-534-00 | 3.6M | 1-244-758-00 |
| 3.9 | 1-246-415-00 | 39 | 1-246-439-00 | 390 | 1-246-463-00 | 3.9k | 1-246-587-00 | 39k | 1-246-511-00 | 390k | 1-246-535-00 | 3.9M | 1-244-759-00 |
| 4.3 | 1-246-416-00 | 43 | 1-246-440-00 | 430 | 1-246-464-00 | 4.3k | 1-246-488-00 | 43k | 1-246-512-00 | 430k | 1-246-536-00 | 4.3M | 1-244-760-00 |
| 4.7 | 1-246-417-00 | 47 | 1-246-441-00 | 470 | 1-246-465-00 | 4.7k | 1-246-489-00 | 47k | 1-246-513-00 | 470k | 1-246-537-00 | 4.7M | 1-244-761-00 |
| 5.1 | 1-246-418-00 | 51 | 1-246-442-00 | 510 | 1-246-466-00 | 5.1k | 1-246-490-00 | 51k | 1-246-514-00 | 510k | 1-246-538-00 | 5.1M | 1-244-762-00 |
| 5.6 | 1-246-419-00 | 56 | 1-246-443-00 | 560 | 1-246-467-00 | 5.6k | 1-246-491-00 | 56k | 1-246-515-00 | 560k | 1-246-539-00 | | |
| 6.2 | 1-246-420-00 | 62 | 1-246-444-00 | 620 | 1-246-468-00 | 6.2k | 1-246-492-00 | 62k | 1-246-516-00 | 620k | 1-246-540-00 | | |
| 6.8 | 1-246-421-00 | 68 | 1-246-445-00 | 680 | 1-246-469-00 | 6.8k | 1-246-493-00 | 68k | 1-246-517-00 | 680k | 1-246-541-00 | | |
| 7.5 | 1-246-422-00 | 75 | 1-246-446-00 | 750 | 1-246-470-00 | 7.5k | 1-246-494-00 | 75k | 1-246-518-00 | 750k | 1-246-542-00 | | |
| 8.2 | 1-246-423-00 | 82 | 1-246-447-00 | 820 | 1-246-471-00 | 8.2k | 1-246-495-00 | 82k | 1-246-519-00 | 820k | 1-246-543-00 | | |
| 9.1 | 1-246-424-00 | 91 | 1-246-448-00 | 910 | 1-246-472-00 | 9.1k | 1-246-496-00 | 91k | 1-246-520-00 | 910k | 1-246-544-00 | | |

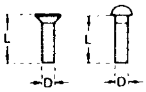
## HARDWARE NOMENCLATURE

**Screw:**

– P 3 x 10

- *L: Length in mm*
- *D: Diameter in mm*
- *Type of head*
- *Indicated slotted-head only.*

*Unless otherwise indicated, it means cross-recessed head (Phillips type).*

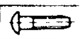
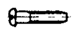
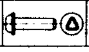
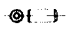
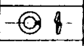


| Reference Designation | Shape | Description | Remarks |
|---|---|---|---|
| **SCREWS** | | | |
| P | | pan-head screw | binding-head (B) screw for replacement |
| PWH | | pan-head screw with washer face | binding-head (B) screw and flat washer for replacement |
| PS<br>PSP | | pan-head screw with spring washer | binding-head (B) screw and spring washer for replacement |
| PSW<br>PSPW | | pan-head screw with spring and flat washers | binding-head (B) screw and spring and flat washers for replacement |
| R | | round-head screw | binding-head (B) screw for replacement |
| K | | flat-countersunk-head screw | |
| RK | | oval-countersunk-head screw | |
| B | | binding-head screw | |
| T | | truss-head screw | binding-head (B) screw for replacement |
| F | | flat-fillister-head screw | |
| RF | | fillister-head screw | |
| BV | | braizer-head screw | |

**Nut, Washer, Retaining ring:**

N 3

- *Diameter of usable screw or shaft*
- *Reference designation*

| Reference Designation | Shape | Description | Remarks |
|---|---|---|---|
| **SELF-TAPPING SCREWS** | | | |
| TA |  | self-tapping screw | ex: TA, P 3 x 10 |
| PTP |  | pan-head self-tapping screw | binding-head self-tapping (TA, B) screw for replacement |
| PTPWH | | pan-head self-tapping screw with washer face | binding-head self tapping (TA, B) screw and flat washer for replacement |
| PTTWH |  | pan-head thread-rolling screw with washer face | binding-head (B) screw and flat washer for replacement |
| **SET SCREWS** | | | |
| SC | | set screw | |
| SC |  | hexagon-socket set screw | ex: SC 2.6 x 4, hexagon socket |
| **NUT** | | | |
| N | | nut | |
| **WASHERS** | | | |
| W | | flat washer | |
| SW |  | spring washer | |
| LW | | internal-tooth lock washer | ex: LW3, internal |
| LW | | external-tooth lock washer | ex: LW3, external |
| **RETAINING RINGS** | | | |
| E | | retaining ring | |
| G | | grip-type retaining ring | |

**Sony Corporation**

9-958-823-01

© 1980

80F0476-1
Printed in Japan